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ABSTRACT

This monograph examines vocational education and training (VT) in Denmark. Section 1 presents background information/framework data on the following: Denmark's political and administrative structure; population, employment, and unemployment; and the Danish economy. In section 2, the history of VT in Denmark is traced from before 1870 to the present. Also discussed in section 2 are selected components/aspects of Denmark's education and VT and vocationally-oriented adult training systems, including the following: basic school education and transition to VT, vocational guidance in schools, coordinated admission policy, scope of VT, youth training, admission routes and educational structure, on-the-job training, agricultural training, admission to further education, training to combat youth unemployment, vocational induction courses for young persons, production schools, legislation, training for unemployed individuals, further technical/commercial training, part-time training courses conferring qualifications, training for trainers, and open education. Section 3 describes the management and administration and financing of VT in Denmark. Analyzed in section 4 are trends and problems in Danish VT, including development of the quality of vocationally-oriented education and internationalization and the significance of the European Community. Forty-nine tables/figures are included. Appended are the following: lists of abbreviations/acronyms and relevant institutions, 39-item bibliography, and definitions. (MN)

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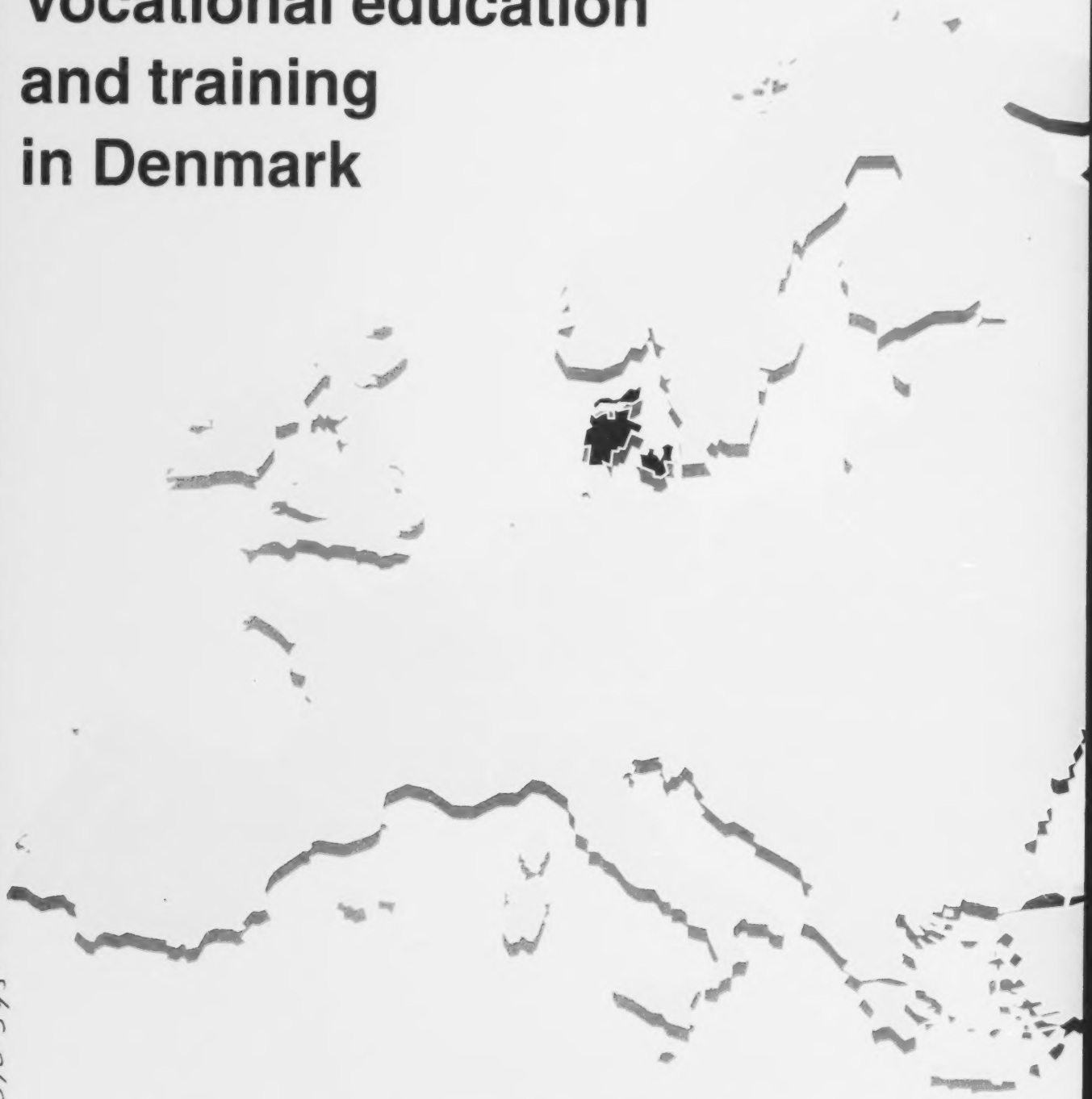

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Vocational education and training in Denmark

This monograph has been prepared by:

Søren P. Nielsen
Statens Erhvervspœdagogiske Læreruddannelse (SEL)
(The Royal Danish School of Educational Studies
for Teachers at Technical and Commercial Colleges)

on behalf of
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F. Alan Clarke – CEDEFOP

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CEDEFOP INTRODUCTION

IS THERE A SYSTEM?

Is there such a thing as a vocational training system? Strictly speaking, the answer is no, in that a system assumes a clear set of objectives and a logical and coherent framework for policy-making and execution to achieve them. In reality, vocational training, sandwiched between the education system and the demands of the labour-market, caught between the different and varying social, economic, and political priorities of political parties and the social partners, and in the conflicts between different ministries and public powers, located at national, regional, and local level, does not in any of the Community Member States demonstrate the characteristics of a system.

Nevertheless, this volume and the 11 similar volumes on the other Member States constitute a third generation of CEDEFOP monographs on the training systems in the Member States. In preparing it, much has been learned from the procedures used for, and the reaction to, the earlier monographs and the Guide to the vocational training systems, published in 1983.

CONTENT OF THE REPORTS

The present monographs have been prepared by one organization or individual in each of the Member States, following a detailed specification by CEDEFOP of the contents required. These specifications were discussed and agreed at a meeting in Berlin in May 1991.

The basic structure was designed to incorporate

(a) a presentation of the administrative, demographic, and economic background in which the training system exists;
(b) a brief historical review of the development of the training systems;
(c) a presentation of the arrangements for initial training;
(d) a presentation of the arrangements for continuing training;
(e) an indication of where responsibilities for administering the system are located, including the influence of the social partners;
(f) information on financing the system;
(g) an indication of present trends and developments, where authors were asked, in particular, to indicate how far the system has been, or would be, influenced by Community considerations such as the creation of the single European market, mutual recognition of qualifications, the intervention of the Structural Funds, and the Community's education and training programmes.

THE PROCESS OF PREPARATION

Authors were asked to send a copy of their draft report for comment to the members of CEDEFOP's Management Board in their country, and organizations with a major role in the training system. They were requested to incorporate the views expressed to the maximum extent possible. Whereas in general authors were asked to be descriptive and analytical, they were encouraged in the last section ((g) above) to express their own views.

Initial draft monographs on each of the Member States were delivered to CEDEFOP in the period between September 1991 and March 1992. As experience had led us to expect, the documents received varied considerably in their approach, content, and presentation. Between January and October 1992, CEDEFOP had a series of intensive meetings with each of the authors, in order to ensure that certain elements were added to the reports and that they respected specific rules with relation to presentation. A novel and very beneficial feature of these meetings was participation in many cases by the translators responsible for translating the volume concerned.

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Following these meetings the authors revised their report on the basis of what was said during the meeting, took account of comments received, and included references to recent developments in their country.

USE OF DIAGRAMS

It had been hoped that a large number of diagrams could be developed which would be common to all the monographs, and could then be used by the reader to simplify comparisons between the Member States. These could later become the basis of additional publications, such as a guide to the training systems or particular aspects of them. However, we have found that while it is relatively easy to obtain and present statistical information on the population, the employment market, and the economy, it remains difficult not only to obtain hard and comparable data on many aspects of the education and training systems of all 12 Member States, but also to present this information in a useful diagrammatic form.

WHO ARE THE USERS?

A question which came up repeatedly in the preparation of the monographs was: what is our primary user group? Our belief is that these monographs will be useful to a wide range of people active in vocational training, including policy-makers, practitioners, and researchers, but also to those seeking training in another country, and needing to know the framework in which it is provided. They are therefore, in particular, geared towards the needs of those who participate, or wish to participate in any of the Community programmes involving partnerships, visits, etc. Hence the emphasis on having monographs which are not more than 100 pages in length, and which do not require reference to other documents.

LINKS WITH OTHER COMMUNITY ACTIVITIES

CEDEFOP has been anxious that this work should be seen in the context of other Community activities with relation to information on the education and training systems. CEDEFOP has been glad to participate in the joint publication with Eurydice of 'Structures of the education and initial training systems in the Member States of the European Community' available in English, French and German. The European Unit of Eurydice, and CEDEFOP have also tried to ensure that the authors of the monographs on the training systems, and the Eurydice units providing information for the national dossiers on the education systems, should be in contact with each other. The European Unit of Eurydice, and CEDEFOP similarly are continuing their efforts to ensure that the products of this work should be available to a wide audience, and with this in mind are investigating possibilities of holding the information on a common automated system.

In a more general way, as indicated above, CEDEFOP considers these monographs should be useful in supporting other activities of the Community in the field of training, and through this, the implementation of the new provisions, contained in Articles 126 and 127 of the Maastricht Treaty.

The publication of these monographs does not mark the end of this activity. Arrangements will be made for their updating and their republication as appropriate and as resources permit. CEDEFOP would be extremely pleased to have comments on their usefulness and proposals on how they could be improved, from anybody who has occasion to use them.

Corrado Politi
Deputy Director

J. Michael Adams

F. Alan Clarke

Berlin, November 1992

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AUTHOR'S PREFACE

This monograph in the CEDEFOP series on vocational training in the EU Member States was prepared during the autumn of 1991 and was then submitted to a number of national authorities and vocational training experts. An amended version was discussed with CEDEFOP during the spring of 1992, and resulted in a number of changes to the text. While these submissions with subsequent changes took place, the Danish vocational training system continued to develop. The monograph was written in the spring of 1991, but with some updating during the spring of 1992.

The monograph has been based on many sources. Especially important has been the work and the material created by SEL's development enterprises in connection with implementation of the vocational training reform. Further, the publications of the Ministry of Education and Research, *Undervisningsministeriets Nyhedsbrev*[1] and the magazine *Uddannelse*[2] have proved to be rich sources for making a survey of a period of the history of the Danish vocational training system, which has been influenced by extensive reforms. The annual report and statistical surveys of the National Labour-market Authority have also been of great help.

Owing to fundamental changes in the vocational training system during recent years it has been difficult to find key surveys on which a description of the Danish system could be based. Thus, this is a first attempt to give a comprehensive description of the vocational training systems in Denmark after the reforms. It has presented some difficulties, but has also been an interesting – though time-consuming – assignment.

The monograph has been much improved by the comments and suggestions relating to the first draft. A number of valuable suggestions have been incorporated in the monograph. Comments have been received from the National Labour-market Authority, the Department of Vocational Education and Training of the Ministry of Education and Research, the National Association of Danish Employers, the National Federation of Trade Unions, the Danish Eurydice unit and a number of experts in the field of vocational training, who have had the possibility of commenting on the monograph. I also owe my colleagues at the SEL a great deal of thanks for valuable and critical comments and constant inspiration during the whole process.

It must be emphasized that the responsibility for the final version is my own. As mentioned, it is a first attempt to capture the changes in the Danish vocational training system and the present monograph is not an authorized version from the Ministry of Labour or the Ministry of Education and Research.

Finally, I want to take the opportunity of thanking my good friends in CEDEFOP for the fruitful cooperation we have had during the work on the monograph.

Søren P. Nielsen
Copenhagen
September 1992

[1] The Newsletter of the Ministry of Education.
[2] Education.

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BACKGROUND INFORMATION

Denmark

County boundaries

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1.1 Political and administrative structure

1.1.1
The Danish Kingdom comprises Denmark, Greenland, and The Faeroes. Denmark's total area is 43 000 km² with a population (in 1990) of just over 5.1 million. Greenland's area is about 2 200 000 m² with a population of 52 000 and the area of the Faeroes is about 1 400 m² with a population of 45 000. This and the following sections confine themselves to conditions in Denmark.

1.1.2
Denmark comprises the Jutland peninsula and three groups of islands:

- Zealand, Lolland and Falster;
- The Funen group of islands;
- Bornholm.

The ocean forms Denmark's western, northern and eastern boundaries. The only frontier is with Germany, about 68 km long in the south of Jutland.

1.1.3
Denmark is a constitutional monarchy with a representative democracy. The constitution dates from 1849, and was last amended in 1953. According to the constitution public power is divided into three, the legislative, the executive, and the judicial. These three public powers each have their functions and to some extent control each other. Since 1953, parliament has had only one chamber, the Folketinget which has 179 members, two of whom represent the Faeroes and two Greenland. Elections are by proportional representation, and the Folketinget elects the government.

The Folketinget is elected for a period of four years, but is often dismissed earlier as the Folketinget may topple the government and call for new elections.

1.1.4
In Denmark, one single political party has never obtained a majority to form a majority government. The election system produces a political representation in the Folketinget, which results in coalition governments. Since 1971, Denmark has only had minority governments which have in each individual case had to negotiate with one or several other parties to form a majority. The period after 1982 has seen changing non-socialist minority governments.

1.1.5
Denmark has three administrative levels. Central administration, which is located in Copenhagen, consists of the various ministries which are split up into several departments and comprise a number of institutions or directorates. The country is split up into 14 county boroughs and 275 municipalities, half of which have less than 10 000 inhabitants. Thus, on an international scale, these are small administrative units.

1.1.6
Politically and administratively the public sector has undergone major change during the last few years. There has been a deliberate decentralization based on the principles of management by objectives, increased market control, and stronger consumer influence. The Danish educational system has changed substantially during the last 10 years. New ideas of control and mechanisms of allocation have been introduced. Keywords have been management by objectives, decentraliza-

tion, market control, strengthened school management, and free choice of education in a coherent and open educational system.

1.1.7
In a Ministry of Education publication, U 91, a completely new pattern in Danish educational policy is discussed. The restructuring has been carried out everywhere, at the various stages of education, but most radically within the vocational training sector, as this system is directly under governmental control, whereas the primary and lower secondary school are a municipal matter and the upper secondary schools come under the county councils. There are thus three administrative levels in Denmark which are active in training policy, the 275 municipalities, the 14 counties, and the government.

1.1.8
For historical reasons the vocational training of young people (16 to 19 years of age) is controlled by the Ministry of Education, while adult training (above the age of 18) is the administrative responsibility of the Ministry of Labour. This implies some minor differences – significant for both systems is the active interplay of the social partners.

In Denmark, basic vocational training is offered within a nationwide, uniform system leading to qualifications which are valid throughout the country, all of them recognized by the social partners. As mentioned, vocational training is controlled by the Ministry of Education and Research.

Corresponding conditions prevail within the labour market training schemes for adults (persons above the age of 18 – unskilled, semi-skilled, and skilled), which are administratively under the Ministry of Labour.

The division of responsibilities between the Ministry of Labour and the Ministry of Education is, however, not very sharply defined. As a curiosity, one can point out that the Ministry of Labour regulates and finances the further training of skilled workers, which takes place in schools, which provide basic vocational training, which is the responsibility of the Ministry of Education.

1.1.9
Recent vocational training reforms have completely changed the relationships between the Ministries and the schools/centres. On 30 March 1989, Parliament passed the Vocational Training Act and the Act on vocational schools, which together form the basis for a comprehensive reform of vocational training in Denmark. The various levels in the decision-making system have acquired new conditions and tasks. The educational reform has completely changed the management instruments of the Ministry of Education from detailed management by rules into management by objectives. The new conditions imply that 120 vocational schools, 60 of them commercial schools and an equal number of technical schools, are now allowed a greater degree of autonomy on a more user-oriented basis.

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1.1.10
In training courses for the labour-market, there has been increased emphasis and a partial change over to training management in the form of management by objectives and a large project is currently in progress. The 24 AMU centres (labour-market training centres) in Denmark, of which 19 are autonomous institutions and five State schools, have been given greater autonomy with regard to financial and educational management.

1.1.11
On account of this political and administrative decentralization, vocational schools and AMU centres have been given greater opportunity to find individual solutions. At the same time, however, central government, the social partners and other interested parties have endeavoured to maintain national standards in vocationally-oriented youth and adult training schemes. The occupational aims are unchanged and fixed standards have to be achieved in tests. It is particularly with regard to the content and organization and financial management that the schools have become more autonomous.

1.1.12
The social partners play an active role in managing vocational training in Denmark, in both centralized and decentralized bodies. This applies to both the theoretical and practical elements of vocational training systems.

Among the social partners in Denmark, there is a long tradition of involvement in educational issues through representation on councils and boards. It must be noted that new legislation in this area has chosen to further strengthen the role and responsibilities of the social partners in the development of training.

The involvement of the social partners ensures that the training schemes correspond to the needs of the labour-market and that the qualifications gained are recognized by the companies.

1.2 Population, employment, unemployment

Population

1.2.1

The population of Denmark has increased steadily over a long period. The table shows the overall population in selected years.

The population of Denmark 1900-2020 (millions)

1900	2.4	1940	3.8	1970	4.9	1990	5.135	2010	5.135
1920	3.1	1960	4.6	1980	5.122	2000	5.213	2020	4.968

Source: Uddannelse, No 9, 1988 'Samfundet, der aeldes', P. C. Mathiessen (Education No 9, 1988: Society growing old)

For a long period between 1800 and 1950 there was an annual increase in population of about 1%. Since that date, the birth rate has fallen and there has been a marked decrease in the number of births, falling from 88 000 in 1966 to just under 51 000 in 1983. The average number of live births per female decreased from 2.6 to 1.4 in the same period, i.e. it was almost halved in the course of 15 to 20 years. Although the number of live births rose again in 1991 to 1.6, considerable demographic changes influence planning in the education sector.

1.2.2

Age groups 1988-2010

Year	7-15 years	16-18 years	17 years	19-24 years
1988	599 400	219 000	71 600	496 500
1990	560 000	223 900	75 900	475 700
1991	541 300	220 400	72 400	466 400
1995	499 900	193 300	63 200	443 500
2000	525 200	161 500	54 400	384 000
2005	565 200	173 300	57 600	327 600
2010	557 300	189 000	63 400	348 500

Source: Uddannelse, No 9, 1988 'Samfundet, der aeldes'. P.C. Mathiessen

The first group comprises young people attending primary and lower secondary education. The 16 to 18-year-olds constitute the demand for vocational training and education to prepare for higher education (upper secondary school studies), whereas the number of 17-year-olds indicates the demand for training contracts. This last group is important for assessing overall demand for higher education.

As the table shows, the age group of 16 to 18-year-olds will account for only 160 000 towards the end of the century, i.e. some 60 000 or 27% less than today. In short, it can be said that the numbers in primary and lower secondary education up to the mid-1990s can be accurately estimated and this is equally true for vocational training, training prior to higher education and further training until around the year 2005.

1.2.3

Overall age structure is shown in the following diagram.

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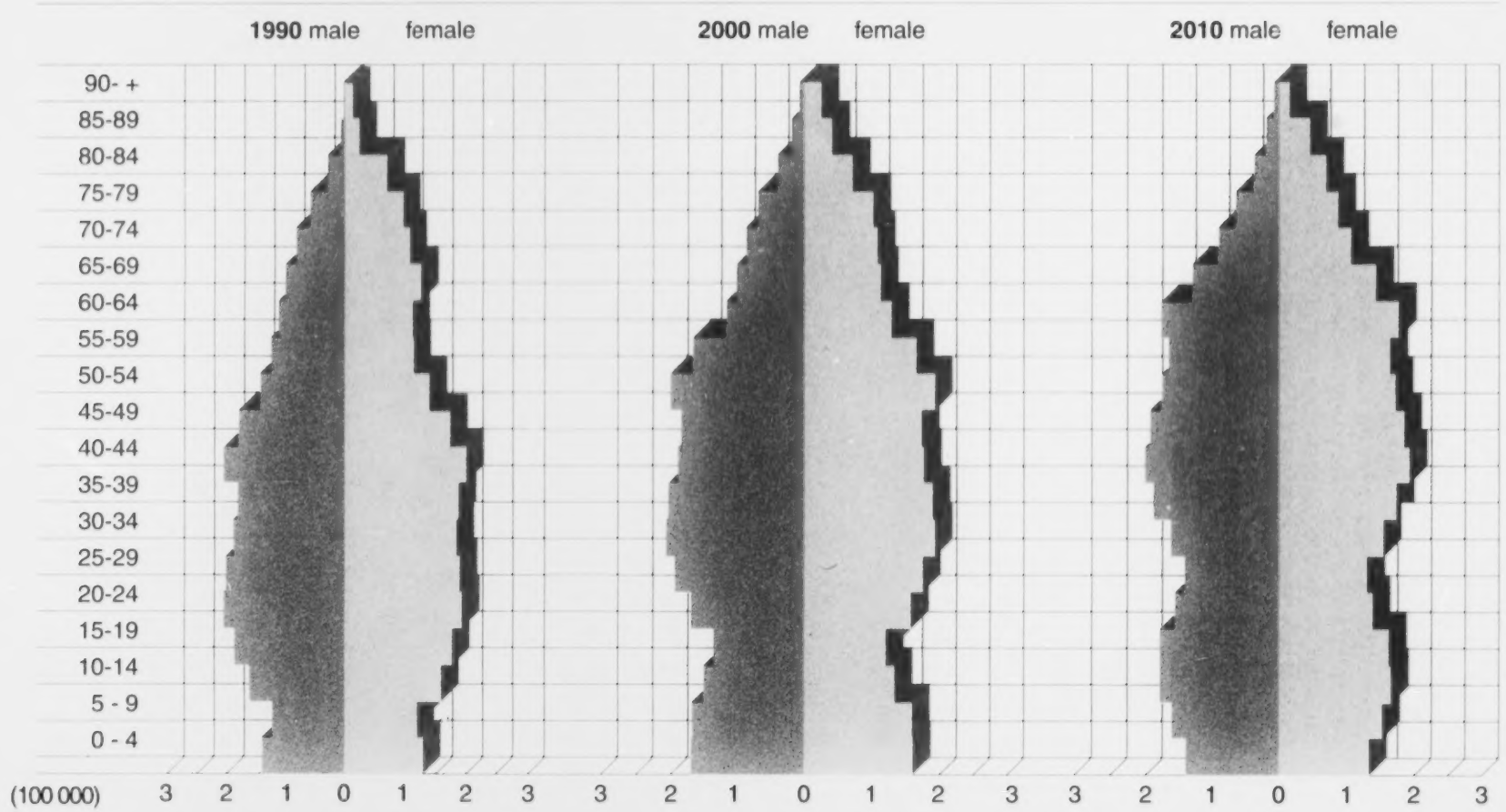
Age structure (Denmark)

Estimate for 1 January 1990 - forecast for 2000 and 2010

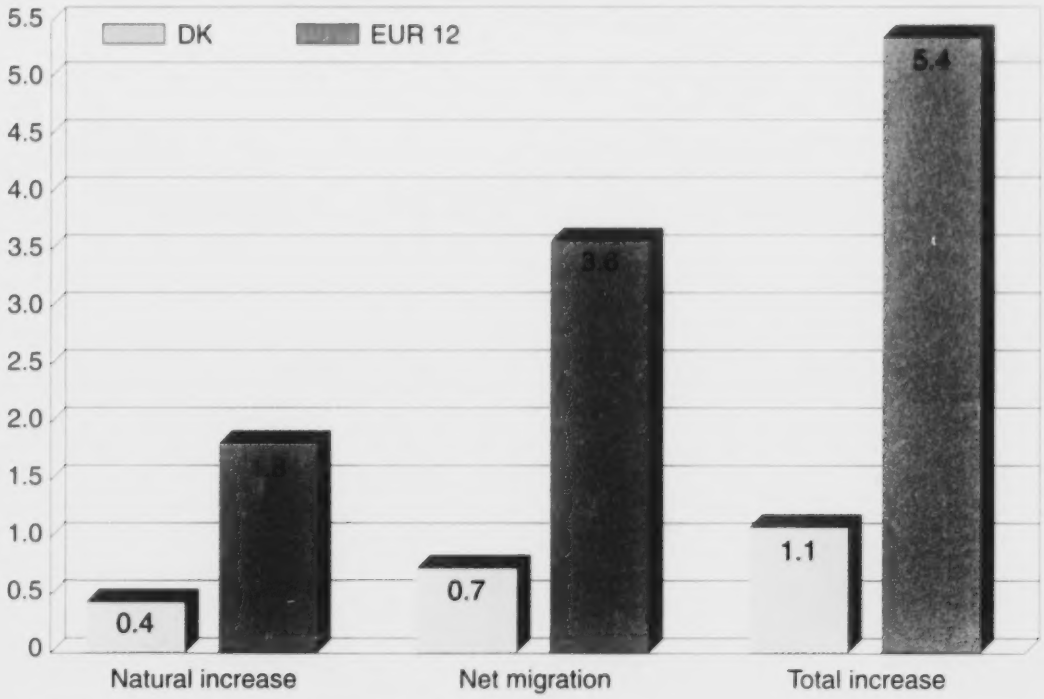


Source: Eurostat – *Demographic Statistics*, 1992.

1.2.4 .
The age structure in Denmark is changing. There is a decrease in the younger section of the population while the older section is increasing. In the past 15 years, the proportion of children and young people under 20 years of age has fallen from just under one third to just under one quarter. Within the same period, the proportion of elderly persons, i.e. aged 65 and over, has increased from 13 to 16%.

Based on the annual population forecast by the Danish Bureau of Statistics, it can be forecast accurately that in 2030 the number of elderly persons will have increased by 35% and will make up one fifth of the population. The number of young persons under 20 will have fallen by 25% and there will be a slight overall decrease in the gainfully-employed age groups 20 to 64 years.

Change of the population in 1989 (per 1 000 inhabitants)



Source: Eurostat - *A social portrait of Europe*, 1991.

1.2.5
There are few immigrants to Denmark. Since 1983, overall immigration has increased, reaching a maximum of 10 000 in 1983. Denmark has a total population of 5.1 million, of these 145 000 are foreigners, i.e. less than 3%, which is very low in a European context. There are 60 000 immigrants from developing countries, 55 000 from Scandinavia, the EU and North America, and 30 000 refugees.

In primary and lower secondary education, 4% of children in 1990 were of non-Danish mother tongue. Although quantitatively not a problem, their concentration in certain areas of Denmark is very pronounced. In the coming years there is to be a major educational effort in language teaching in order to deal with problems relating to the transition to vocational training.

Employment

1.2.6

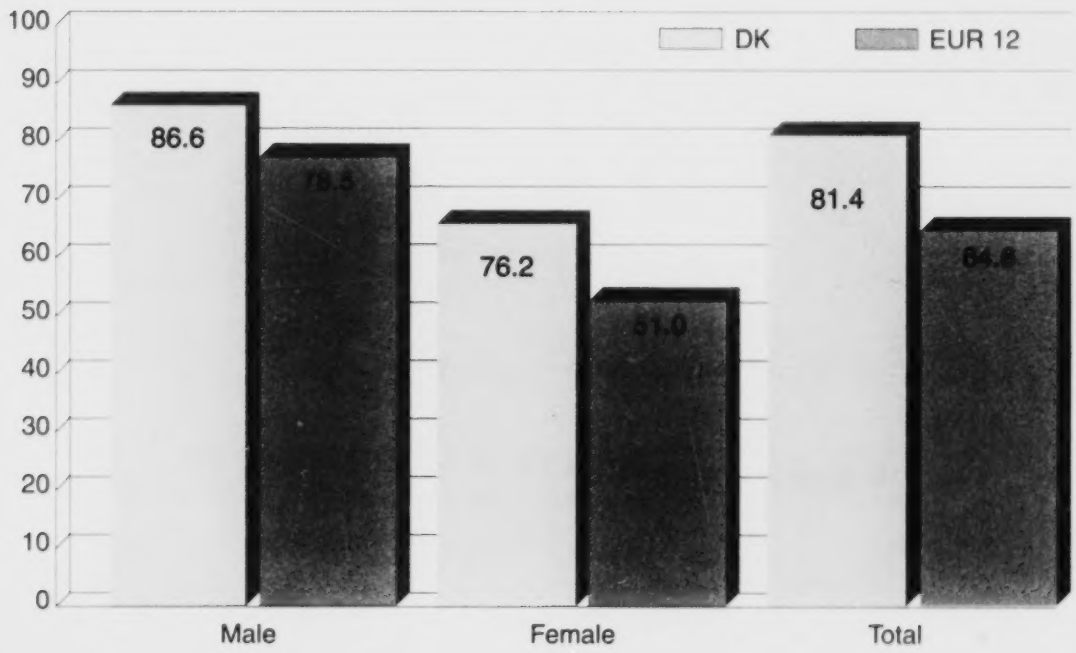
Out of the total population of 5.1 million, the total labour force in Denmark, including self-employed persons, wage earners and the unemployed, is 2.9 million, the labour force being defined as all persons within the 16 to 66 age group.

Between 1979 and 1987, the labour force increased by almost 10%. Since the end of the 1950s, the labour force has grown by some 700 000, 100 000 more than the overall population increase in the same period. Women accounted for the largest part of the increase in the labour force. In the past 10 years, the female labour force increased three times more than the male. In 1989, the employment rate for men was 80.7% and for women 68.3% of the total population of working age.

On account of the current high employment rate for women, the falling number of young people and the increase in the number of elderly persons, the Danish labour force will decrease slightly in the coming years.

As can be seen from the diagram, 2.6 million of the labour force are in employment and just under 275 000 persons were unemployed in 1990.

Activity rate of population aged 14 to 64 in 1988 (%)

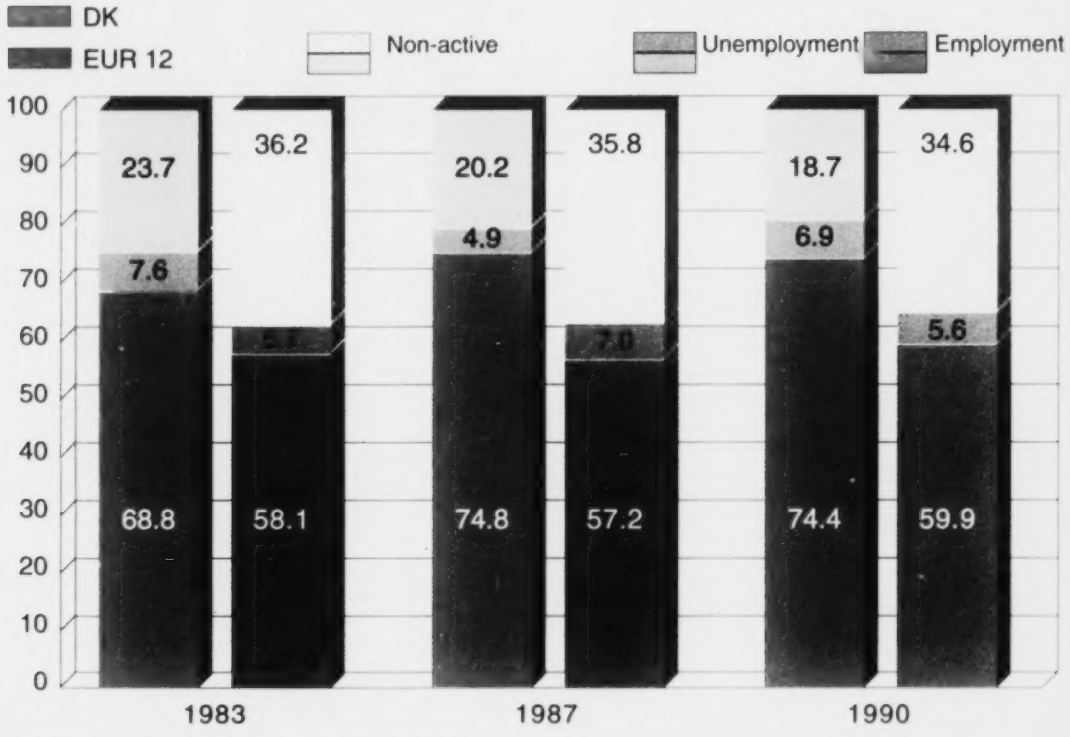


Source: Eurostat - *A social portrait of Europe*, 1991.

Some 1 million in the 16 to 66-year-old age group do not belong to the labour force, they are comprised of 350 000 early retirement-pensioners (see paragraph 1.2.9), 350 000 young persons undergoing training, 100 000 on social security benefit, and 200 000 housewives and others.

Some 750 000 in the 16 to 66-year-old age group, representing 21.7%, receive welfare and/or unemployment benefit in Denmark. This figure has been rising sharply over the last 15 years.

Population aged 14 to 64 according to economic status 1983 / 1987 / 1990 (%)



Source: Eurostat – Labour force surveys.

Unemployment

1.2.7
The number of unemployed in August 1991, after seasonal adjustment, was 301 200, 10.8% of the labour force in Denmark. This figure is based upon the labour force in the 16 to 66 years age group and includes both the insured unemployed and the uninsured.

1.2.8
Unemployment has been rising since 1987 in Denmark. This has been due, in particular, to implementation of the 'growth-pause-policy', which proved to be necessary on account of the large balance of payments problems which Denmark

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faced during the boom of 1983-86. Since 1991, unemployment has risen monthly in both the under-and-over 25 age group.

The following diagram shows the trend in the unemployment figures over the 1987-91 period.

Trends in unemployment in Denmark 1987-91 (1 000)

	1987	1988	1989	1990	1991
Average number of unemployed	222	244	265	272	295[1]
Long-term unemployed (> 0.8)	69	82	94	95	
ATB persons	35	35	45	55[1]	
Average number of employed	2 620	2 620	2 603	2 594	2 571

[1] Estimated
Source: Ministry of Labour

While the total number of employed persons fell slightly during the period, average unemployment rose, as did long-term unemployment. The number of 'ATB' persons is the segment of the long-term unemployed who have been jobless for more than 24 months and who will join a job offer scheme.

1.2.9

Unemployment, by age and sex (seasonally adjusted)

	Men	Women	Total	Of whom			Men	Women	Total	Of whom		
				Under 25 yrs	25-59 years	60 years and more				Under 25 yrs	25-59 years	60 years and more
	Unemployed (1 000)						%					
1989												
Aug.	119.0	144.9	263.9	59.2	196.2	8.5	8.0	11.1	9.4	11.0	9.2	7.2
1990												
Aug.	125.3	148.6	273.9	61.9	203.1	8.9	8.4	11.4	9.8	11.5	9.5	7.5
1991												
Aug.	138.4	162.8	301.2	63.5	229.2	8.5	9.3	12.5	10.8	11.8	10.7	7.2

Source: Statistisk manedsoversigt, 1991, 11, Danmarks Statistik (Central Bureau of Statistics).

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From the table showing the breakdown of unemployment, it is evident that female unemployment is higher than male, namely 12.5% compared to 9.3%, and that all groups with the exception of those over 60 years have experienced rising unemployment. The markedly low figures for the over 60s are attributable to the *efterlonsordning*, an early retirement scheme offered to persons with unemployment insurance and having at least 10 years' membership of an unemployment benefit fund at 60 years of age.

A more detailed breakdown of unemployment categories shows that unskilled workers run a greater risk of unemployment than skilled workers and white-collar categories.

1.2.10

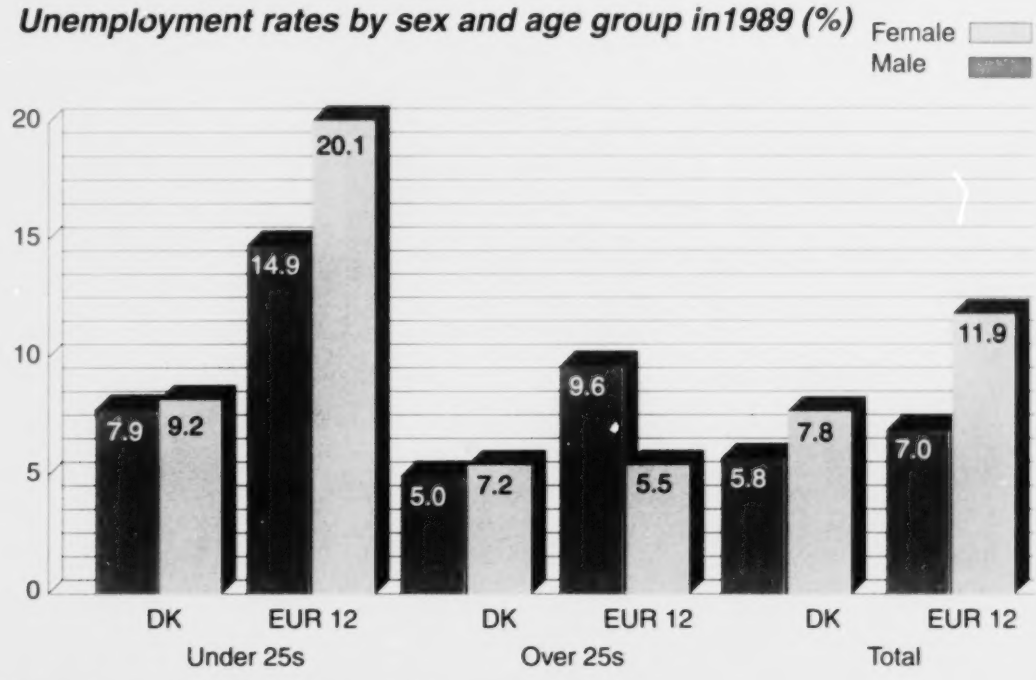
Long-term unemployment is rising in Denmark; the individual periods of joblessness are becoming longer and more people are joining the ranks of the long-term unemployed, as shown above.

If long-term unemployment is defined as the number of jobless with an unemployment rate of more than 80% (> 0.8) in the course of a year (more than 42.4 weeks), as defined by the Central Bureau of Statistics, then the figure for 1990 was 94 800, of whom 42 700 were male and 52 100 female. These figures include the uninsured category, estimated to amount to between 15 000 to 20 000 on social security benefit.

1.2.11

Youth unemployment is a serious problem in Denmark. In August 1991, 63 500 young people under 25 years of age were jobless, representing 11.8% of the age group, with women over-represented. Despite the demographic trend and the many new training and guaranteed work schemes, there is no immediate prospect of a solution to the youth unemployment problem.

Unemployment rates by sex and age group in1989 (%)



Source: Eurostat - *A Social Portrait of Europe*, 1991

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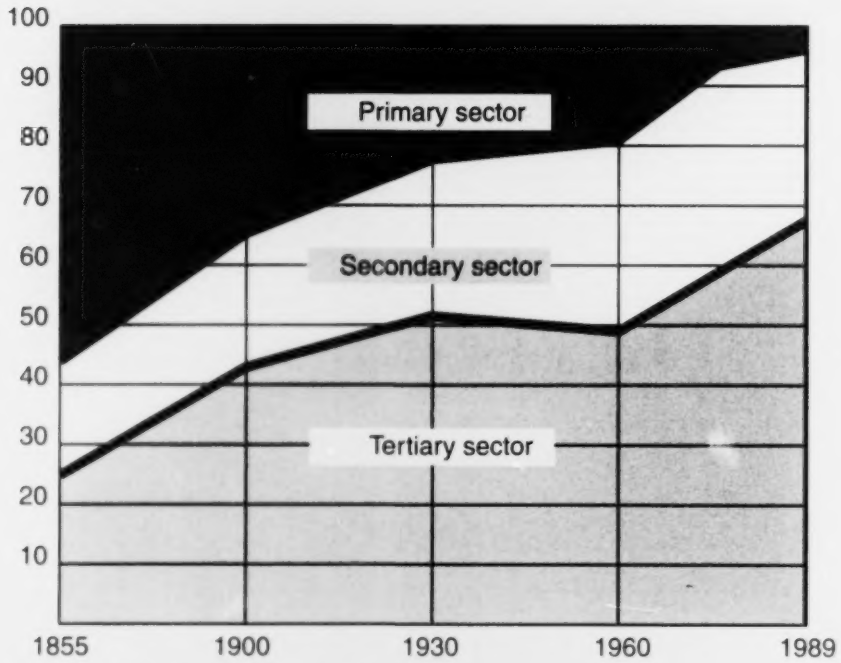
1.3 The Danish economy

Trends

1.3.1
The historical trend in the Danish economy shown in the diagram below, demonstrates in the long term the shifts between the three main sectors in the economy.

Gross domestic product at factor cost: Distribution between primary, secondary and tertiary sectors, 1855-1989

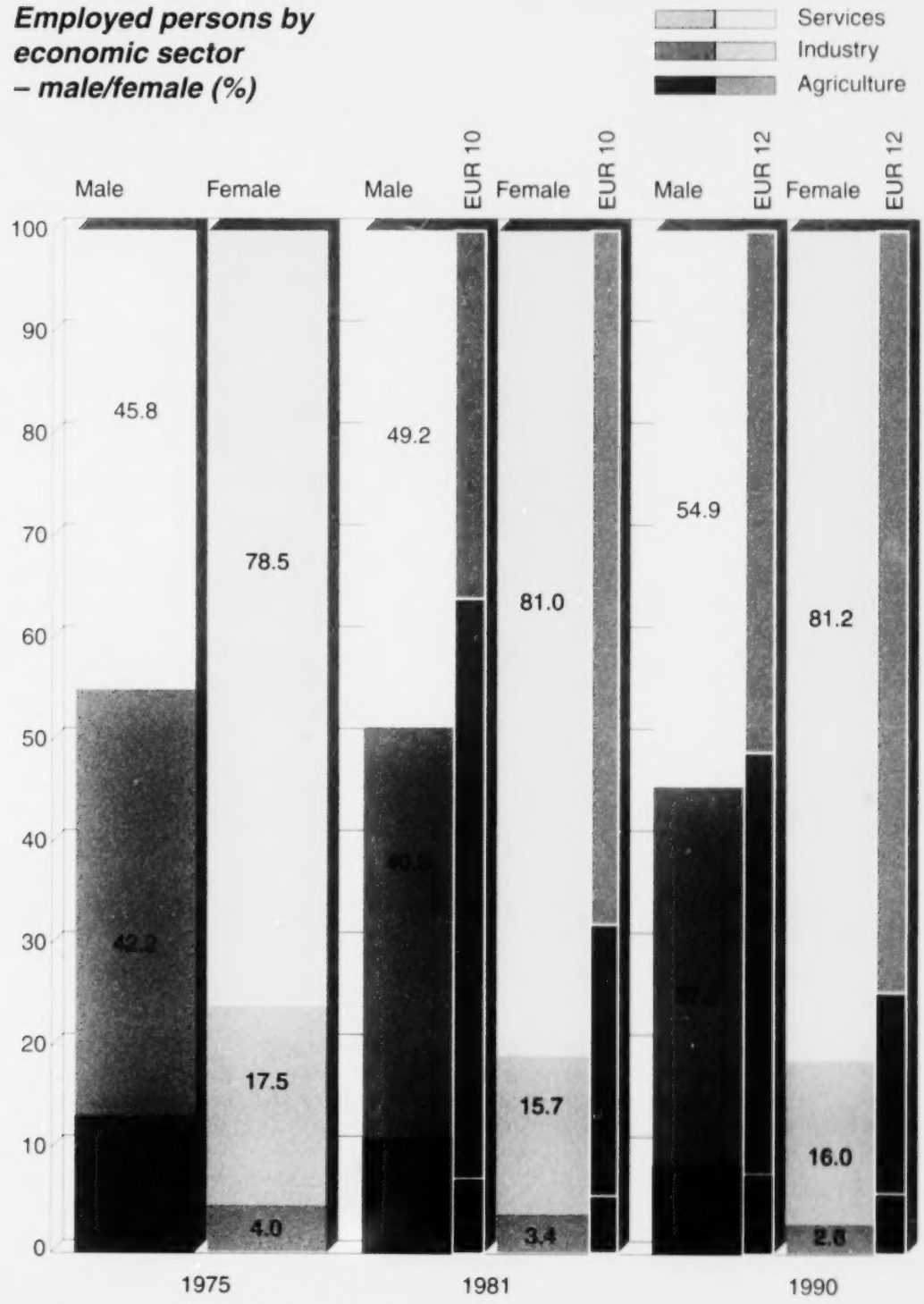


Source: Samfundsstatistik, 1990.

In the course of the 20th century, Denmark has changed from an agricultural country into a highly developed industrial one with a service sector which is becoming predominant. There has been a clear shift towards the tertiary sector since 1960 which marked the beginning of the expansion of the public sector.

1.3.2
The diagrams illustrate employment developments:

Employed persons by economic sector – male/female (%)



Source: Eurostat – Labour force surveys.

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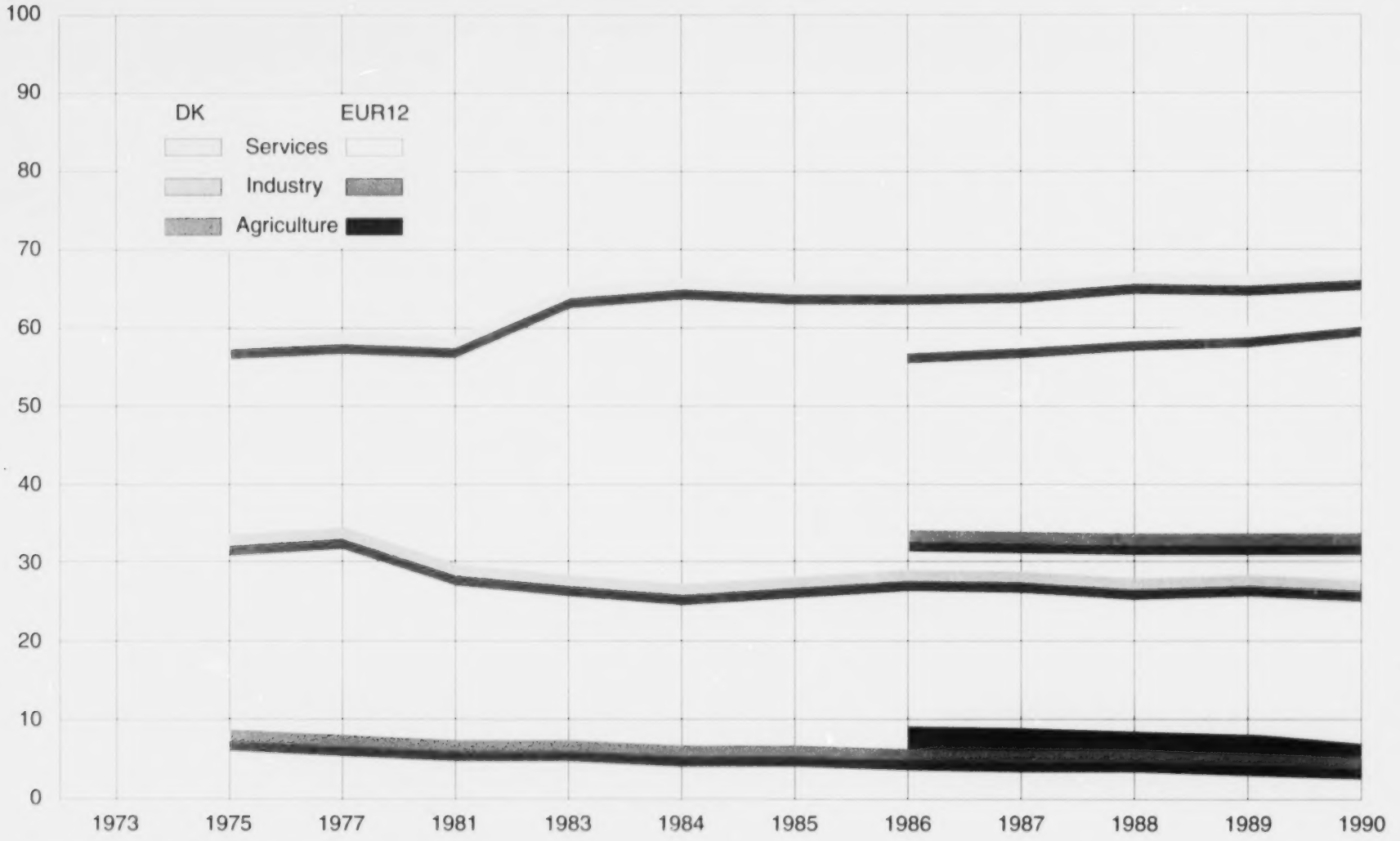
Employment by economic sector (%)



Source: Eurostat – Labour Force Surveys 1980-91.

Employment in Denmark has been increasing in the tertiary professions, which by 1990 employed two thirds of all employed persons, and which has had an inflow of 220 000 more employees over the last decade, while only 20% of the labour force are employed in manufacturing enterprises (industries and handicraft).

Persons employed in industry and service, by broad NACE group (%)

	1983	1987		1990	
	DK	DK	EUR 12	DK	EUR 12
Industry					
Energy and water	0.9	1.0	2.0	0.9	1.5
Mineral extraction, chemicals	2.1	2.2	4.5	1.9	3.6
Metal manufacture, engineering	9.2	8.1	11.6	7.7	10.0
Other manufacturing industries	11.1	11.0	11.5	10.4	10.4
Building and civil engineering	6.0	7.2	7.2	6.5	7.8
Services					
Distributive trades, hotels	14.1	15.2	16.0	15.9	18.9
Transport and communication	7.8	4.9	6.4	7.1	5.9
Banking, finance, insurance	6.7	9.5	7.7	9.3	8.0
Public administration	7.3	8.1	9.7	6.7	7.6
Other services	32.2	30.5	20.9	28.0	19.7

Note: NACE = General industrial classification of economic activities within the European Communities.

Source: Eurostat labour force surveys 1983, 1987, and 1990.

1.3.3

Developments in the entire manufacturing industry are attributable to trade-dependent shifts.The textile, clothing and leather industries have halved since 1960, whereas employment in chemical industries has doubled. The largest trade, iron and metal industries, has maintained employment, but distribution within the trade has changed, as the more technological industrial branches such as measuring instruments are witnessed increasing employment at the expense of the 'heavy' branches, for example, shipbuilding. The labour-intensive branches are receding and being replaced by highly technological industries. The continued development of the industrial structure is also reflected in the distribution of employment and job positions. During the 1980s the trend was clearly upwards in the hierarchy of positions. Positions with a modest demand for skills are vanishing as production is becoming increasingly advanced, whereas at the top of the hierarchy new jobs are created requiring better qualifications. During the 1980-87 period, employment of managers and executives increased by 16%, while that of skilled workers rose by 9%.

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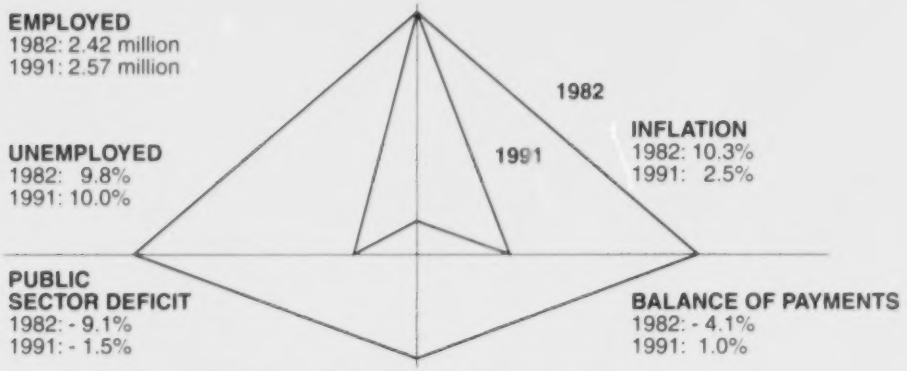
Balance of payments problems

1.3.4

Since 1963, current items in the balance of payments in Denmark have been in deficit. The structure of the Danish economy has hindered an economic policy securing economic growth, full employment and price stability and balanced payments. A conflict of interests existed between that of full employment and the balance of payments.

Balance of payment problems in the Danish economy



Source: Ministry of Finance, financial statements 1991.

1.3.5

Between 1982 and 1991 there was an overall improvement in the balance of payments. In 1990, for the first time since 1963, there was a balance of payments surplus of DKR 10 billion (ECU 1.3 billion) and in 1991 and 1992 the balance of payments surplus was expected to amount to 1% of GNP. Between 1982 and 1991, Denmark witnessed a turnaround from high to low inflation. The public sector deficit has been reduced to a low level from the international point of view. This has occurred at the expense of unemployment, which in 1991 was as high as in 1982. In 1991 some 300 000 were unemployed, an unemployment rate of 10%. At the same time, economic policy has slowed down the growth rate in the Danish economy since 1986.

1.3.6

The average percentage economic growth in GNP over the past years was as follows:

1986 + 3.6	1988 + 0.6	1990 + 2.1
1987 + 0.3	1989 + 1.2	1991 + 1.7[1]
		1992 + 2.4[1]

[1] Estimated.

Source: Ministry for Economic Affairs, 'Økonomisk oversigt', September 1991.

The Danish economy is still extremely vulnerable and the marked improvement in the balance of payments has been at the expense of high unemployment.

Economic policy

1.3.7
Since the centre-right government took over power in 1982, the main elements in macropolicy have been determined: a fixed exchange-rate policy within the EMF, rapid liberalization of Danish capital within the EU and stringent financial policy. The fixed exchange-rate policy, in particular, sets extremely narrow limits for both monetary and financial policy. If the unemployment problem is to be solved, it cannot be done using traditional macropolicy means. Structural policy initiatives to change the system are required. A structural policy drive is recommended in both the reports of economic experts and the 1991 financial report, in order to solve the structural problems on the labour market. The supply side of the labour-market must be reorganized if the problems cannot be resolved through business cycle policies.

1.3.8
Problems became very clear in the 1982-87 period, when Danish economic growth rates were relatively high compared with other European countries. With economic growth at 3% and the unemployment rate just under 8% (220 000 unemployed), structural problems were discovered in the Danish labour market, resulting in wage drift and rising inflation and as a consequence, huge balance of payment problems. 'Natural' unemployment, defined as the level of unemployment which is compatible with unchanged competitiveness has increased considerably over the past 20 years. The jobless simply do not have the necessary qualifications to compete for vacant positions.

1.3.9
If unemployment is to be reduced and the conditions for steady economic growth rates of 3% per annum are to be guaranteed in the Danish economy, a comprehensive qualification policy must become the cornerstone of structural policy. The government's report on financial policy recommends, in particular, major efforts in the field of continuing training as the correct remedy. With a surplus on current items in the balance of payments, the situation is favourable for starting a structural policy drive. As described in a detailed annex to the financial report for 1991 with regard to adaptation requirements on the labour market, this is viewed as fundamental for ensuring growth rates over 3% in the 1992-96 period. Bottleneck problems will appear quickly within the metal, building and construction sector and in the category of intermediate-level engineers.

1.3.10
If economic growth and lower unemployment are to be maintained under conditions of a balance of payments surplus and with stable prices, there is a need for a qualifications drive. With a total foreign currency debt of just under DKR 300 billion, a surplus on current items is a necessity for a number of years.

1.3.11
Besides the continuing training drive, motivated by the need for technological development and higher productivity, the Danish labour-market is facing other problems. According to the financial report and the 1989 government White Paper on structural problems on the labour market, the lack of flexibility and action are attributable to an inappropriate unemployment benefit system which lacks adequate self-regulating mechanisms and incentive structures for workers and employers. It is also stressed that, although average wage costs in Denmark are internationally competitive, measured in terms of wage costs per unit-produced, the wage scale in Denmark is small compared with other countries.

A structural policy drive will presumably embrace the whole spectrum of problems, but the main emphasis will be upon continuing training.

THE VOCATIONAL TRAINING SYSTEM

2.1 Historical development of vocational training

Introduction

2.1.1
Vocational training schools date back to around 1600. In the centuries that followed, there was a constant shortage of vocationally qualified labour; for a long time it was left to the individual craftsmen to qualify themselves. An apprenticeship system evolved in which master craftsmen took adults or children on as apprentices to teach them their trade.

Technical schools originated around the year 1800, but they were primarily for quite elementary education, such as Danish, arithmetic, and drawing.

A brief presentation will be made of the most important features in the development of vocational training in Denmark, supplemented by a brief survey of other vocationally oriented training schemes.

The period up to 1870

2.1.2
Organized apprentice training originated in the early 1400s, when Eric of Pomerania, partly as a move against the Hanseatics, granted to a number of country towns a monopoly to perform certain trades and handicrafts. In each country town, each trade set up its guild. The guilds laid down the training time for apprenticeships, the apprentices' pay and working conditions and the areas in which the apprentices were to be taught. The guilds also held the examinations and tests for apprentices to become journeymen.

2.1.3
The guild system functioned well up until the Napoleonic Wars, and on the whole, apprentices could expect to become master craftsmen. From the beginning of the 19th century, changes took place in the market and capital structure, resulting in a reduction of the number of independent masters and a deterioration in apprentices' conditions.

2.1.4
In the early stages, apprentice training had an element of schooling. The first attempt to introduce organized education on a wider scale dates from 1622, when King Christian IV started a school to teach clothing production, with German and Dutch master craftsmen as instructors. In 1800, Sunday schooling as established for apprentices to improve the skills of would-be craftsmen in reading and arithmetic. Education for apprentices was optional and included only the elementary school subjects.

2.1.5
Economic and political liberalism in the first half of the 19th century led to a call for abolition of the guild system and by the 1857 Act on freedom of trade (Naeringsfrihedsloven), the guilds were deprived of their rights. This was a setback to apprenticeship training as this abolished the obligation to make contracts with the apprentices and the obligation to take the journeyman's examination at the end of

the apprenticeship. The right to engage freely in trade was a real threat to the craft trades and associations were formed throughout the country to defend handicrafts. In these associations, the importance of establishing and operating technical schools increased. As early as 1870, some 50 technical schools were set up by local craft and industrial associations. Freedom of trade was a prerequisite for industrialization, but at the same time it meant that vocational training, which had been under the authority of the guilds, suffered a severe blow.

The period 1870-1960

2.1.6
From 1875 onwards, the government and the municipalities provided substantial grants to set up technical and commercial schools, with the result that by 1910 they numbered 170.

2.1.7
The 1889 Apprenticeship Act (Laerlingeloven) made provision for the conditions of apprentices and the contractual relationship between master craftsman and apprentice. Schooling was established on more permanent lines, and the 'Technical School Association' created in 1891 initiated syllabuses and the use of textbooks. The 1889 Law stated that in apprenticeship training courses in commerce and the clerical field, master craftsmen were obliged to send apprentices to commercial school for training. Attendance by apprentices was compulsory and tuition was given in evening classes which were arranged and planned locally.

2.1.8
At this time there were a number of sweeping economic, political and social changes. These were of fundamental importance for the interaction between government and labour-market partners, and still are today. Industrialization brought with it radical changes on the labour market. In the 1880s, local trade unions were formed, amalgamated into national federations, which from 1898 were combined in the Danish Federation of Trade Unions (de samvirkende Fagforbund, subsequently LO, Landsorganisationen i Danmark). Employers' associations were also formed at this time and they combined in 1898 to form the Danish Employers' and Master Craftsmen's Association (Dansk Arbejdsgiver- og Mesterforening subsequently Dansk Arbejdsgiverforening, Danish Employers' Confederation, (DA)).

2.1.9
Following the general strikes in 1899, workers and employers agreed on a common constitution under labour law, the September Agreement of 1899 (Septemberforliget in 1899), the basic principles of which still apply today. These institutional frameworks are very important for the further development of vocational training. During the First World War the government became involved in technical education and subsequently in commercial education.

2.1.10
The 1921 Apprenticeship Act introduced a provision enabling the employer and employee organizations in the individual trades to recommend the holding of journeyman examinations to the Minister of Education. This acquired great importance for future cooperation on apprentice training between employers, workers and the government. In the 1920s, the first trade committees were formed in which the organizations representing master craftsmen dealt with questions concerning apprentice training schemes, including school matters, in line with the trade unions.

2.1.11
With the 1937 Apprenticeship Act, the trade committees became statutory and were assigned a number of crucial functions relating to apprentice training. At the same time, a high level, coordinating apprentice advisory council was set up, common to all apprentice training schemes. From 1937 onwards, compulsory education for apprentices was introduced.

2.1.12
The new 1956 Apprenticeship Act was the outcome of very different circumstances. In the national planning of training in the early 1950s, the central problem was the prospect of high annual birth rates. The attempt to avoid high youth unemployment was expressed in the desire to increase the number of apprentice training posts. Prior to this, the number of apprenticeships had been limited in order to guarantee a basis for thorough trade training, but the new 1956 Apprenticeship Act abolished restrictions on the number of apprentices. This must also be considered against the backdrop of industry's urgent need for skilled labour. Dissatisfaction with teaching in technical schools grew in the period prior to 1956. Teaching was changing from evening classes to daytime courses, with very different educational requirements. At the same time, the role of the trade committees was strengthened, in that they were now also consulted with regard to compiling programmes for training apprentices.

The period 1960-87

2.1.13
Although the 1956 Act modernized apprenticeship training considerably, a criticism of the apprentice system as a whole remained. The 1960s was a period of strong economic growth, with marked growth in the number of employed and with a substantial drop in unemployment. This resulted in bottlenecks and shortages in skilled labour. For the manufacturing industry, in particular, which needed versatile, mobile and more specialized labour, the Act of 1956 was outdated. At the same time, an increasing number of young people were choosing an academic education, and the numbers in apprenticeship training were insufficient to cover the demand for skilled labour.

2.1.14
To counteract this, at the beginning of the 1970s attempts were made to set up a new structure for initial training schemes. This was the result of criticism waged in a committee report (Betænkning 612) in 1971 on basic vocational training. The criticism waged against existing apprenticeship schemes can be summarized as follows:

(1) too early choice of occupation, i.e. at the start of training, when young people often do not have the experience to make such a choice;
(2) a lack of coordination between on-the-job training and schooling, and in many instances a lack of adequate planning of training during in-company training;
(3) many firms have become too specialized to provide apprentices thorough all-round training;
(4) insufficient importance attached to general qualifications and education;
(5) a lack of coherence in the whole training system for the 16 to 19-year-olds.

2.1.15
For an experimental period, a new structure and new guidelines for initial training schemes were tested. In 1977 the Initial Training Act was passed (the EFG Act). The crucial new element in the EFG, compared to training provided by master craftsmen is that the training starts with a whole year at the technical school. This period is used to provide a broad introduction to a whole family of training courses. At the same time, more detailed vocational and training guidance is given, and general education provided, following on from primary and lower secondary school education.

2.1.16
It was assumed that the apprentice training courses run on the basis of the apprenticeship scheme would stop completely by 1982 at the latest, but this did not take place. EFG training schemes were reduced in the low-growth period of the 1970s. It was not possible to provide a sufficient number of in-company training places for the many young persons who, on finishing their basic year, applied for an on-the-job place with a company in order to complete education. The shortage of labour in the 1960s was replaced by the employment crisis of the 1970s.

2.1.17
Consequently, the 1980s witnessed the existence of two parallel systems of vocational training in Denmark, namely apprentice training schemes pursuant to the 1956 Apprenticeship Act, and initial training schemes (EFG) under the EFG Law of 1977. Both systems were based on alternance training. However, there are great differences in the structure of training, its monitoring and counselling. The main difference in the training structure is the two admission routes.

The 1989 vocational training reform

2.1.18
Characteristically many of the points of criticism waged at the beginning of the 1970s still played an important role in the 1980s. In the autumn of 1985, the Minister of Education contracted a firm of consultants to analyse the management of vocational training activities.

In the consultants' report of 1986, recommendations included:

- that a number of functions should be decentralized to the schools;
- that management by objectives should be introduced;
- that the financial system should be based upon self-regulating mechanisms;
- that the functions of the advisory bodies should be redefined.

2.1.19
In May 1986, the Minister of Education appointed a committee to reform basic vocational training. The terms of reference for the committee's work stated that in the coming years there would be a major need for the reorganization of trade and industry, and that the training system was not providing the latter with adequate support in its reorganization. The social partners were strongly represented in the committee, called the Reform Committee. The vocational training system had been found to have the following inadequacies:

- it was characterized by being non-transparent to interested parties, schools, and trainees;
- there was much subdivision into a multitude of training schemes;
- the system had been split into two parallel streams of apprenticeship and initial training (EFG);
- it was characterized by great inertia compared to vocational and social developments;
- tuition was split into specialized and general subjects.

In June 1987, the committee produced Report No 1112. The report recommended that a system be set up to embrace the existing apprentice training schemes, the EFG schemes and the basic technician training schemes. In addition, it emphasized that the training schemes should take the form of youth training schemes, and provide vocational qualifications and the basis for further training. Lastly, the report pointed to numerous areas providing a basis for the creation of new training schemes.

2.1.20
Political decisions could thus be based on two sets of proposals, those for changing the management of schools based on the analyses of a consultancy business and proposals formulated by the committee on new vocational training schemes.

2.1.21
The Vocational Training Act was passed by a vast majority in Parliament on 30 March 1989 on the date marking the centennial of the first Apprenticeship Act in Denmark. The legislation on vocational schools was passed on the same day. The new legislation in this context will be discussed in greater detail in the following sections. The new laws have been in force since 1 January 1991, although the counselling bodies were set up as early as the autumn of 1990 with the purpose of making an active contribution to implementing the legislative framework.

1960 legislation: semi-skilled worker training

2.1.22
The semi-skilled worker training schemes are an essential part of the vocational training system in Denmark. Many industrial workers have not undergone apprenticeship training. During the industrial upswing at the end of the 1950s and the concomitant migration from country to town, the need arose for trained labour in a number of industrial sectors.

To meet this need, the Act of 18 May 1960 concerning the training of unskilled workers was passed, providing new opportunities for nationwide, systematic training in a number of sectors.

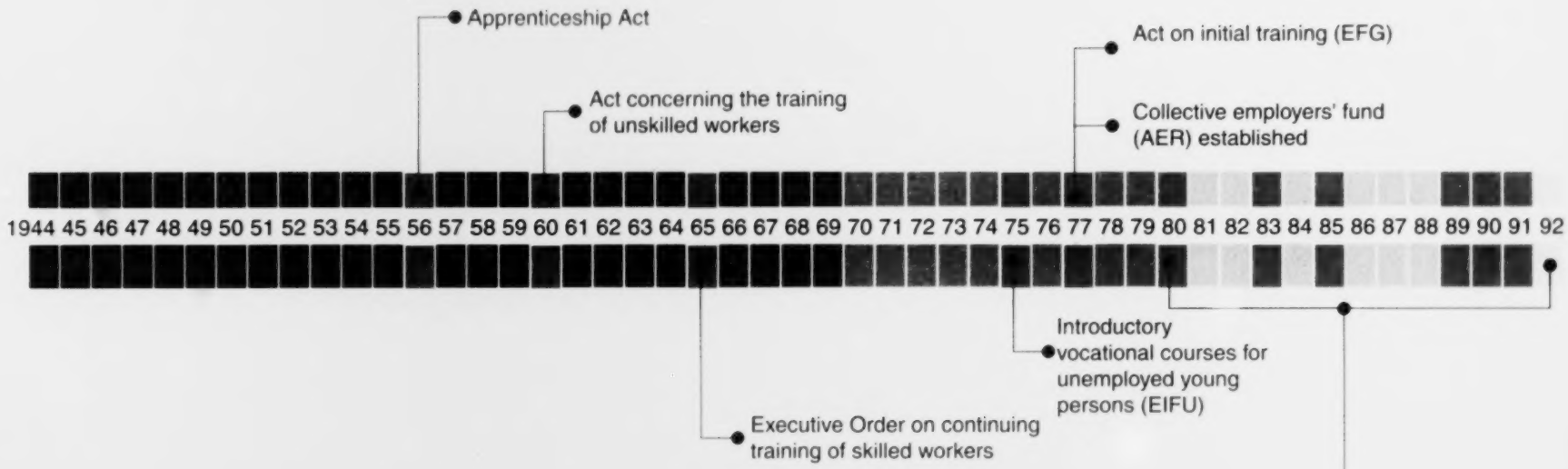
In 1965, the Executive Order on continuing training of skilled workers introductory vocation was issued, and in 1975, (EIFU courses) courses for unemployed young persons) were introduced to combat increasing unemployment. Subsequently, in 1979, they were supplemented by EIFL courses for unemployed adults.

2.1.23
In 1985, Parliament passed a new, revised act on labour-market training schemes. Its aim was to remedy the problems of reorganization and adaption in the labour-market by means of measures based upon labour-market policy. These classes were organized mainly at the AMU centres.

The 1985 amendment of the law and subsequent amendments have made it possible for the AMU centres to adapt activities to local labour-market conditions. In addition to the traditional syllabus courses, company-adapted courses partly paid for by the user-firm (VTP courses) and income-funded courses (IDV) have been introduced.

An overview of the historical development of the vocational education system is presented in the diagram on the next page.

The historical development of the system (Denmark)


Apprenticeship Act
Act concerning the training of unskilled workers
Act on initial training (EFG)
Collective employers' fund (AER) established
1944 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92
Introductory vocational courses for unemployed young persons (EIFU)
Executive Order on continuing training of skilled workers

1980	Training place guarantee for all young people	1989	Act on vocational education
1983	Act on the labour-market training fund (AUD)	1989	Act on open education
1985	Act on vocationally-orientated continuing vocational training (Law 271)	1990	Act on social welfare and health training
1985	Act on labour-market training (AMU)	1990	Act on higher commercial and technical diploma examinations (HHX and HTX)
1989	Act relating to job and training offer schemes (ATB/UTB)	1990	Act on youth schools, production schools and day-release colleges
1989	Act on vocational schools	1991	Agreement between labour market and training institutions

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2.2 Education and vocational training

Basic school education and transition to vocational training

2.2.1
Denmark has nine years of compulsory education. In addition, there is a one-year kindergarten class and a 10th year in primary and lower secondary school. Children start school at the age of six or seven. Parents are free to choose the school and to send their children either to municipal primary and lower secondary schools, where education is free, or to a private school where 15% of the fees are paid by the parents. 10% choose a private school.

2.2.2
At primary school, pupils remain together in the same class for all of the years. In the 8th to 10th years, however, they can choose an extended curriculum in a number of subjects. The class teacher system is a characteristic of the Danish educational system, where the class teacher accompanies the pupils throughout their schooling. Very comprehensive special education is provided for children with learning problems. On finishing the 9th and 10th years, pupils can choose to end their primary and lower secondary schooling with examinations in the most important subjects. The 10th year normally includes a number of subjects of a very practical nature which are taken as optional subjects. Facilities are also provided which appeal to pupils who wish to leave school and which facilitate their transition to vocational training.

2.2.3
Pursuant to legislation, the overall framework for primary and lower secondary school education is laid down by the Ministry of Education and Research, which also draws up the guidelines for instruction in various subjects in recommended syllabuses. The individual schools then draw up the definitive curriculum, which is binding on the individual teacher. Within this framework, the teacher has freedom of action with regard to the methods used to deliver education. The schools are under the local authorities and managed by school boards.

2.2.4
Young people between 14 and 18 years of age are also offered education at about 200 continuation schools (efterskoler), which are boarding schools offering general education and education in creative subjects, practical subjects and, in many instances, sport. Attendance is normally for a one-year period, and on average 15 000 young persons attend such schools.

Vocational guidance in schools

2.2.5
Unofficially, educational and vocational guidance commences in the infant school and continues to the sixth year as guidance on working life. Vocational guidance is compulsory in the 7th to 10th year, with intensification in the transitional stage from school to adult working life. Educational and vocational guidance are not subjects in themselves, but on average 30 minutes of class time per week is set aside in the 7th to 10th years for this.

2.2.6
In the 7th to 10th years, instruction in educational and vocational subjects is the class teacher's responsibility. Each school has a careers adviser, who is a consultant to the class teachers, providing guidance to pupils and parents as well as liaising with companies and educational and training establishments. The school's careers adviser is a teacher who holds both posts. During the 7th to 10th year, close contact is built up with the individual pupil. In many municipalities, the school's careers adviser is also youth counsellor in his school district for young people up to the age of 19.

2.2.7
To coordinate courses for pupils, teachers and careers advisers, an educational consultant is employed in each municipality. The consultant also cooperates closely with trade and industry and with youth training schemes.

2.2.8
Both national and local literature are used in careers guidance. The literature produced by the RUE (Rådet for Uddannelses og Erhvervsvejledning), Council for education and job guidance, includes job guides and more detailed brochures on the different training areas, namely vocational training schemes, upper secondary school schemes, and social welfare and health training schemes. In addition, it also produces a general brochure on choosing training and jobs, with a brief summary of the various opportunities. The local educational media supplement the national sources and focus mainly upon personal choice and opportunities within the local communities.

2.2.9
In addition to this literature, study visits are offered to education institutions and companies and guest speakers are invited to the schools. Information meetings are held for pupils and parents at the local school, with educational counsellors from upper secondary and vocational schools.

On an individual basis, induction courses are held for vocational training courses, for upper secondary school, and other places of education and training. Practical work experience for girls is provided on vocational training courses in non-traditional fields; practical work experience in industry once or twice in the 9th and 10th years; open-days at the different education and training institutions, etc.

2.2.10
Most pupils in the final year apply to go directly into youth training courses, the majority of these being vocational training schemes. In most counties, about 65% apply for direct admission to a vocational training course. School careers advisers list the following as important reasons for choosing vocational training: knowledge of the content of vocational training courses, a well-organized, practice-oriented

course with a company, a clear signal from trade and industry that they are willing to accept and train the young person. About 10% of the 16 to 17-year-olds do not commence vocational training after finishing school. Among 19-year-olds, 33% still have not finished or are still in the middle of vocational training. The real 'residual group' in Denmark amounts to about one third.

Coordinated admission policy

2.2.11
The reforms of recent years in youth training schemes have created a more transparent and more flexible system of training paths for young people leaving primary and lower secondary school (9th or 10th year), i.e. when they are 16 or 17 years of age.

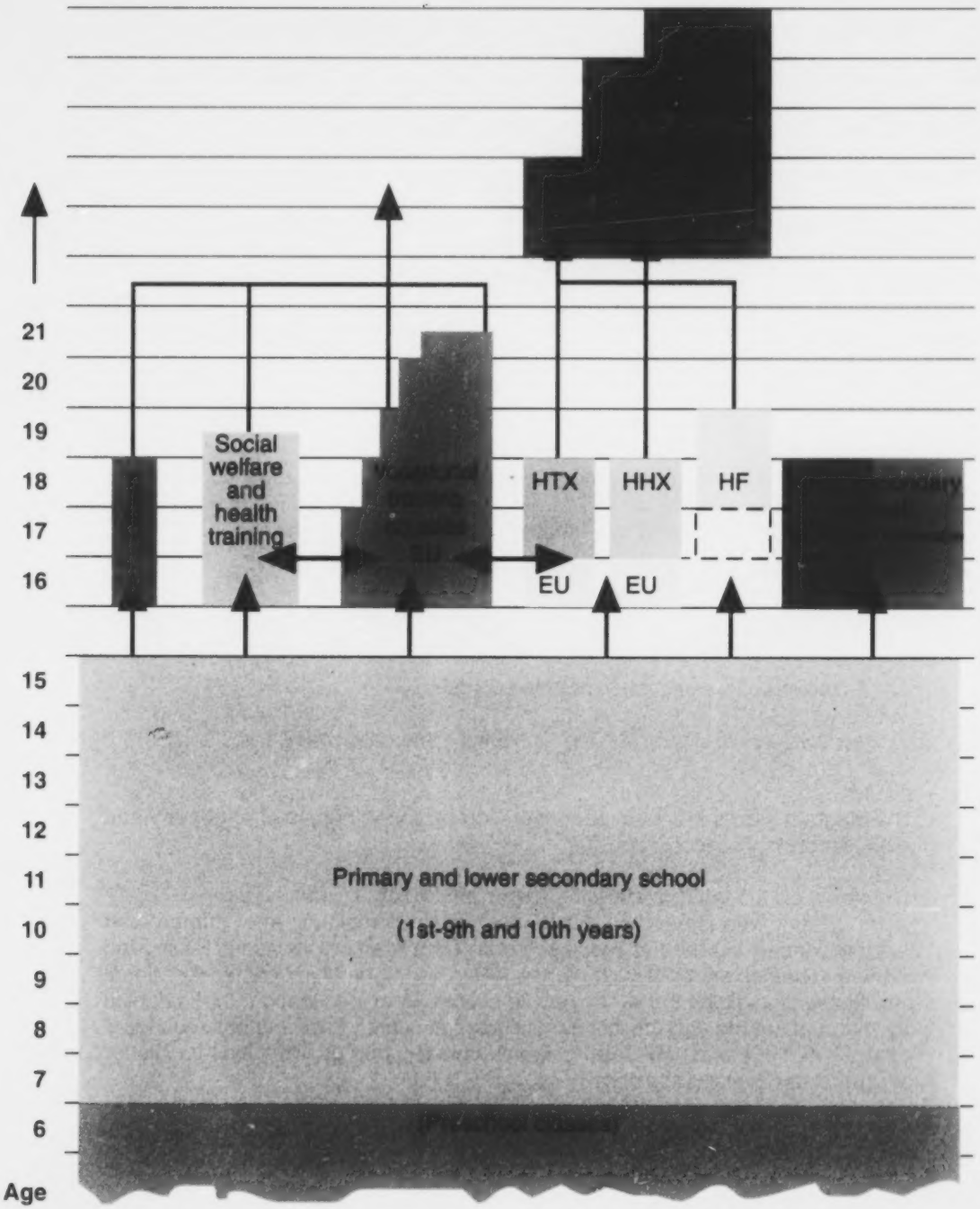
2.2.12
In Denmark, young people have six options from which to choose:

- vocational training schemes, comprising about 85 individual courses;
- upper secondary school (languages or natural sciences);
- HF (higher preparatory examination);
- HHX (higher commerce examination)/HTX (higher technical examination);
- social welfare and health training courses;
- others (government service, agriculture, merchant navy, etc.).

2.2.13
The diagram shows the main paths pursued by young people after primary and lower secondary school.

The arrow on the left illustrates the approximate 10% of a youth-year (16 or 17 years of age) who leave the educational system completely after primary and lower secondary school, the 'residual group'. On the left are vocationally-oriented training schemes set up as alternance schemes, all of which confer vocational qualifications and train the young people directly for an occupation. To the right in the diagram are the upper secondary school training courses – upper secondary school, HF, HHX and HTX – all of which confer study qualifications for higher education and training courses.

Education system in Denmark



HTX = Higher technical examination
HHX = Higher commerce examination
HF = Higher preparatory examination
EU = Vocational training

2.2.14
Admission is open to all who meet the requirements for upper secondary school and HF. From 1992 onwards there was free admission for all qualified for upper secondary school vocational training. Generally, admission to vocational courses is free, and is so for all young people who commence via the practical work experience path. For trainees who commence training via the academic path, admission is limited in just a few subjects. The choice of school is free.

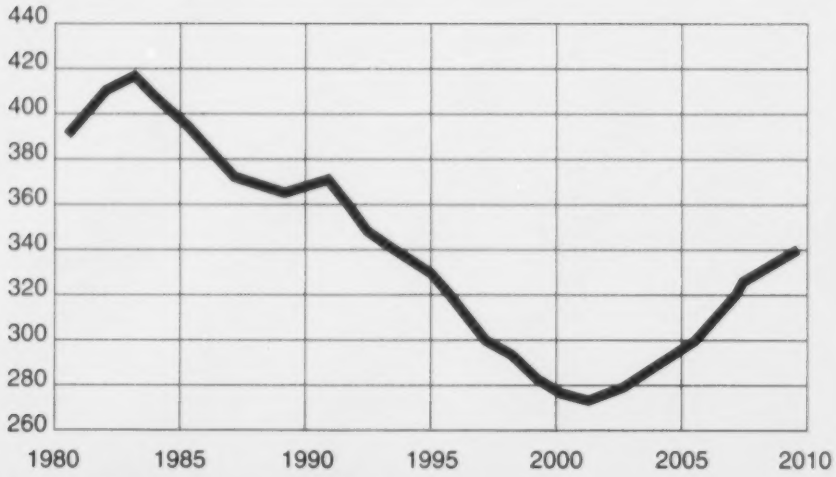
2.2.15
The arrow across some of the training courses signifies full freedom for merit-based transfer, so that after one year it is possible to change course without losing time. It is possible also to move across the upper secondary courses and be credited fully or partially with the training already received in the upper secondary school, HF, HHX or HTX.

2.2.16
A new feature is standard enrolment for all youth training courses. Enrolment forms and guidance on youth training courses are sent out by the Ministry of Education in February to all schools with pupils in the 9th and 10th years. Pupils are obliged to use the same form whatever educational path they pursue. The various courses are treated equally and the aim is to give the pupils a balanced survey of their opportunities. Pupils may enrol for up to three different educational paths and two different schools for each course. The deadline for submission of applications is 15 March. The pupils are informed of the result directly from the school to which they apply around 20 May. This time limit only applies when the form is used otherwise registration is open.

Scope of vocational training

2.2.17
In the course of the 1980s, there was an overall increase in the number of young persons starting a training course compared with the size of the class years. The actual number of persons between 15 to 19 years of age and the trends in the period 1980-2010 are shown in the following diagram.

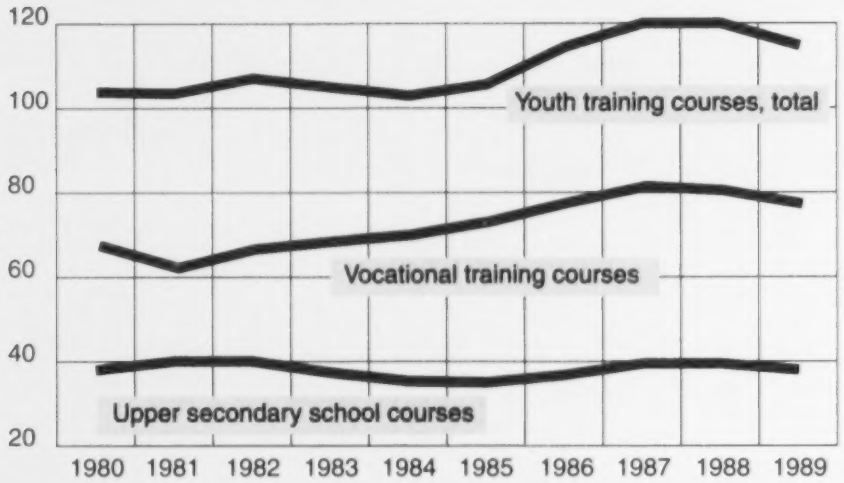
Number of persons of 15-19 years of age 1980-2010 (thousands)



Source: Central Bureau of Statistics

2.2.18

Number of young people starting training courses as a percentage of class years



Source: Ministry of Finance, Financial report 1991.

The degree of overlap is shown as the number of pupils in the first upper secondary school form, first HF year, first EFG year, first apprenticeship year and first year in the other vocational training schemes, measured as a percentage of the size of the class year. The degree of overlap increased from 104 in 1980 to 115 in 1989. Where the percentage exceeds 100, this is due to the fact that some young people start several of these courses over a period of several years. There is free admission to youth training schemes, but there are problems with capacity.

2.2.19

The table below shows the pattern of applications for 1989 and 1990.

Admissions to youth training courses in 1989 and 1990

EFG Commerce and clerical	25 416	26 260	- 844
EFG Engineering and other metal-processing occupations	9 583	9 694	- 111
EFG Building and construction	4 099	4 319	- 220
EFG Food and catering	2 887	3 049	- 162
EFG Service occupations	1 975	2 017	- 52
EFG Printing occupations	828	844	- 16
EFG Agriculture	737	677	+ 60
EFG Overland transport	497	497	
HF	8 507	7 626	+881
Upper secondary school	20 626	20 127	+499
Total	**75 155**	**75 120**	**+ 35**

Source: Ministry of Education Newsletter, 20 August 1990.

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In 1990, 75 155 pupils were admitted from a total of 80 581 applications.

An additional 900 were admitted to HF and 500 to upper secondary school, representing an overall reduction of 1 400 students in vocational training schemes. In the EFG section some 4 000 applicants were not admitted, in particular young persons seeking admission to printing occupations, service and food and catering, and who had no alternative choice of education.

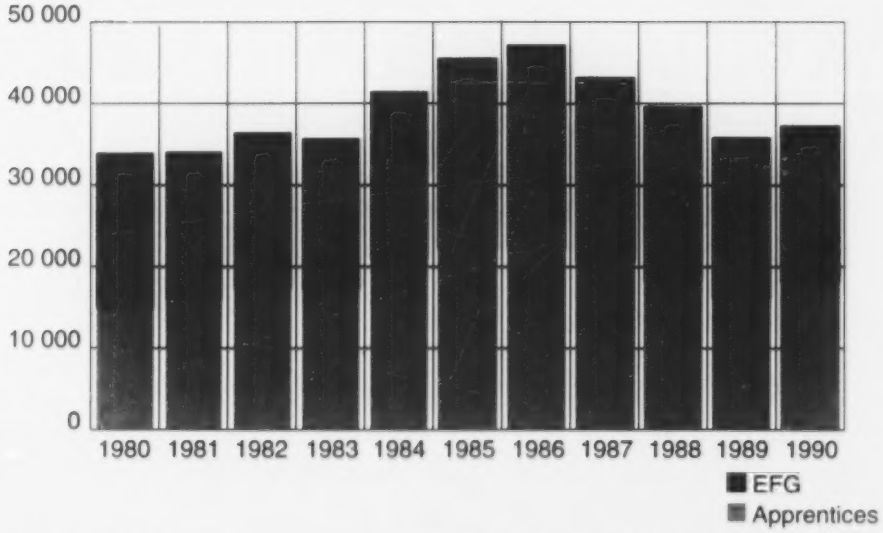
2.2.20
In general, the proportion of young people commencing general upper secondary school training has remained constant in Denmark over the past 15 years. The main area of growth has been in vocational training.

The trend in the number of apprentice and on-the-job training places

2.2.21
In the alternance training system (basic vocational training), there has been a lack of practical training places, especially at a time when large numbers of youth people were seeking these. The decisive factor has been the number of apprenticeships and places for practical work experience, which have been very unstable and extremely sensitive to fluctuations in the general economic situation.

2.2.22

Number of approved and registered training contracts 1980-90



Source: The Directory of Employment/The National Labour Market Authority.

At the beginning of the 1980s, the annual intake in apprenticeships and in-company training courses was 35 000 to 36 000. This rose to 44 000 in 1985. The boom in the Danish economy peaked in 1986 as did the number of apprenticeships and in-company training places, rising to 48 000. Since 1986, however, the number of places has fallen sharply on account of the 'pause in growth' policy introduced in 1987. By 1988, the number of places had dropped to 33 500.

2.2.23
The trend in 1989-91 can be seen from the following table drawn up by the Labour Market Authority:

Approved and registered training contracts

1990 33 319	1990 33 999	1991 33 591

2.2.24

Training contracts per sector in 1990 and 1991

Trade	1990	1991
Building and construction	4 874	4 721
Printing trades	864	978
Commerce and clerical	15 215	15 445
Engineering and other metal-processing industries	6 667	6 537
Agriculture	937	717
Overland transport	238	299
Food and catering	4 219	3 764
Service occupations	985	1 130
Total	**33 999**	**33 591**

Source: Ministry of Education and Research, Newsletter, 21 April 1992.

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2.2.25
Figures on the EFG class years finishing basic training in 1989 and 1990, show distribution by sex:

On-the-job training situation, by sex, for commerce and clerical subjects – schools' reports as at 1 December for the year's school-leavers (1989 and 1990)

Year		Number of trainees completing course	Contracts obtained	Applicants for places	[illegible]	[illegible]	[illegible]
1990	Girls	13667	3624	1344	6427	2022	253
	%	*100.0*	*26.5*	*9.8*	*47.0*	*14.8*	*1.9*
	Boys	7906	1932	360	4656	831	124
	%	*100.0*	*24.4*	*4.6*	*58.9*	*10.5*	*1.6*
1989	Girls	14126	3659	2249	6057	1419	742
	%	*100.0*	*25.9*	*15.9*	*42.9*	*10.0*	*5.3*
	Boys	7907	1904	696	4304	601	402
	%	*100.0*	*24.1*	*8.8*	*54.4*	*7.6*	*5.1*

On-the-job training situation, by sex, for technical subjects – schools' reports as at 1 December for the year's school-leavers (1989 and 1990)

Year		Number of trainees completing course	Contracts obtained	Applicants for places	[illegible]	[illegible]	[illegible]
1990	Girls	5122	2007	903	1262	613	349
	%	*100.0*	*39.2*	*17.6*	*24.6*	*12.0*	*6.8*
	Boys	9885	5476	1502	1992	520	394
	%	*100.0*	*55.4*	*15.2*	*20.2*	*5.3*	*4.0*
1989	Girls	5028	2051	1321	920	503	233
	%	*100.0*	*40.8*	*26.3*	*18.3*	*10.0*	*4.6*
	Boys	9471	4902	2201	1509	422	437
	%	*100.0*	*51.8*	*23.2*	*15.9*	*4.5*	*4.6*

Source: ESA, Udviklingskontoret, March 1991.

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2.2.26
The breakdown by sex of the EFG class year leaving basic training in the summer of 1990 shows that at least 43% of the girls who completed EFG technical subjects did not continue the EFG course. This is 10% more than in the preceding year, when 33% of females left technical training after the basic year. Females who stopped training applied for in-company training places in the autumn of 1990, or enrolled for other training.

2.2.27
Of males at technical schools, a greater percentage did not apply for in-company places, although the increase was only 4% as against 10% for females. In general, it is easier for males than for females to find places for practical work experience.

2.2.28
The figures for the 1990 commercial school basic year trainees show clearly the tendency to enter other training directly: 47% of females and 59% of males went on directly to other training in 1990.

The basic vocational training system

2.2.29
Since 1 January 1991, the basic vocational training system in Denmark has changed markedly. The statutory basis for the reorganization of vocational training was provided for the most part by the Act on vocational schools (Act 210 1989) and the Act on vocational training (Act 211 1989).

2.2.30
The Act on vocational schools provides the overall framework for the management, financing and for other aspects of the vocational schools. The position of the training school as an institution has been redefined and powers have devolved largely to the schools. Two laws in Denmark cover the reform of vocational training which is becoming increasingly responsible for many different training activities in addition to basic vocational training. Schools have been given greater autonomy.

2.2.31
The Act on vocational training replaces the Apprenticeship Act and the EFG Act, and forms the overall framework for the training sector, which had hitherto been covered by apprentice education, EFG training courses, and basic technician training (for example laboratory technician and technical assistant). A common set of rules now exists for these areas of training.

2.2.32
A common system has now been set up for all basic vocational training at commercial and technical schools. This training, with some 85 different courses (compared to almost 300 previously) with more than 200 special subjects, is, with the sole exception of one training course, organized as alternance training with periods of academic study and periods of practical work experience. The aim has been to reduce constraints on admission (in 1991, 11 training courses had limited admission) and trainees and teachers are now granted free choice of training centre. All courses lead to a skilled worker certificate.

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2.2.33
With the vocational training reform, the social partners acquired a stronger position. They are responsible for modernizing training courses, for the practical part of the courses, and for arranging apprenticeship final examinations. They have also acquired greater influence on the academic part of training.

2.2.34
Large-scale decentralization has brought about changes to management of the schools. The task of the Ministry of Education and Research is to set the overall objectives and the framework for content and course funding, while the detailed planning and implementation of courses has been assigned to the schools. Thus the 120 vocational training schools have acquired greater autonomy with regard to planning courses and to teaching as well as financial management. At ministerial level (see paragraph 3.1.9) the Vocational Training Advisory Council is the sole participant in management, while at school level, the boards of the individual schools have been granted greater autonomy. A new feature is the creation of a local training committee at each school (see paragraph 3.1.15). These committees are involved in the practical organization of teaching. The social partners exert substantial influence in both of these bodies at school level, and in the Vocational Training Advisory Council. The management system and the system of financing will be discussed in Section 3.

Youth training and vocational training

2.2.35
Basic vocational training in Denmark provides young persons with both vocational training and broad youth training. This is laid down in the aims clause of the Act on vocational training (Act 211, 1989).

This states that the training system shall:

(1) motivate young people to train and ensure that all young persons who desire a vocational training have genuine opportunities to do so and to choose from a substantial number of training schemes;

(2) give young persons training which provides a basis for future working life and contributes to their personal development and to their understanding of society and its development;

(3) satisfy the needs of the labour-market for occupational and general qualifications, required to develop trade and industry, including the development of the structure of trade and industry, labour-market conditions, workplace organization and technology;

(4) provide persons seeking training with a basis for further training.

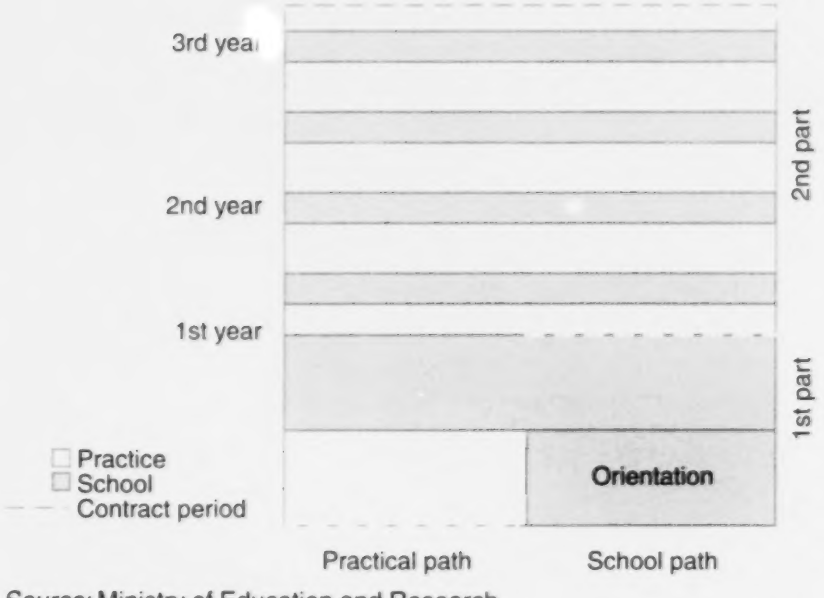
2.2.36
A prime objective of training policy in Denmark is to ensure that the broad character of youth education and training is preserved and that training provides genuine opportunities for continuing training. Not only young persons who choose youth training in upper secondary school or a course preparing for the higher preparatory examination (HF), but also those who choose youth training in a trade, should have a general education which, besides being important for participation in working life, is equally important for other areas of life.

Admission routes and educational structure

2.2.37
Admission to vocational training presupposes that compulsory education (normally nine years' schooling) has been completed. Success in the final examination of basic school is not a requirement for admission to vocational training.

2.2.38

Admission routes and training structure



Source: Ministry of Education and Research.

2.2.39
There are two means of accessing vocational training, namely the school path and the practical work experience path. The two admission routes meet at the start of the second school period, after which the trainees receive the same training. Regardless of the path chosen, duration and content of training is identical.

2.2.40
Trainees who choose the school path will normally start on the first school period, lasting 20 weeks. During this period, the trainees try out several different training areas and receive individual and collective guidance on jobs and training. Workshop instruction occupies a central role and is supplemented by instruction in theoretical subjects. One third of teaching time is allocated to optional subjects, both in preparation for an examination and for subjects of a more general and creative nature. Following the first school period, the trainees select their training course and progress to the second school period. After the second training period, the trainees require a training contract before they can continue training with a company. Trainees receive their first pay from the day on which they commence practical work experience.

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2.2.41
Less than one third of vocational training schemes do not provide opportunities to start training within the first training period. In these instances the trainees go straight into the second training period, as the first period is not obligatory. However, trainees may choose the first training period as there is no admission requirement, but training time is extended by six months. After the first period of practical work experience, trainees progress to the 20-week second training period. Trainees who take the practical work experience path receive pay throughout training.

2.2.42
In 1991, some 67% started training at a vocational training school as compared to 56% in 1990. The school path to vocational training is, therefore, the more common one.

2.2.43
Students over 18 years of age can start directly on the second training period. For students, in particular adults, with a relevant background of employment and training it is possible to omit the first and second training periods and to take the so called 'merit route'.

2.2.44
The structure and admission paths to commercial school training are different; they will be examined in paragraph 2.2.79.

2.2.45
The structure of training is based upon the alternance training principle, i.e. relatively brief theoretical training alternating with practical work experience (on-the-job training) in a company. Training is generally not longer than four years, with theoretical training not exceeding 80 weeks. The trade committees decide upon the detailed structure and modes of alternance between school and in-company training. The aim is to strengthen interaction between school and in-company training.

School-teaching during training

2.2.46
The subjects have changed with the reform and through management by objective, completely new opportunities have arisen for decentralized teaching.

2.2.47
The theoretical part of all of the new vocational training schemes is made up of a syllabus divided into four parts, namely basic subjects, area subjects, special subjects and optional subjects.

2.2.48
Basic subjects are practical and theoretical subjects combining general, industry- or trade-oriented subjects. They aim to provide a broad scope in training and therefore are normally common to several training areas. They encourage the trainees' personal development and give them an understanding of society and its development. The basic subjects must provide trainees with the study qualifications to enable them to take advantage of continuing training opportunities within their area.

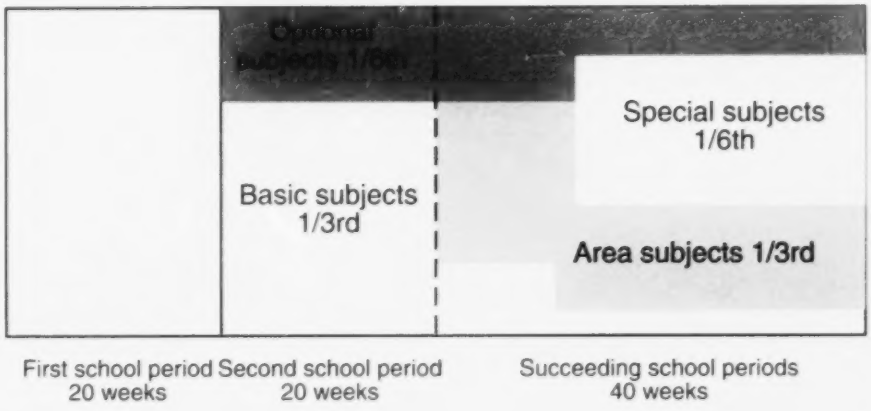
2.2.49
Area subjects comprise practical and theoretical instruction in training and help to give the trainee general and specific vocational proficiency.

2.2.50
At the highest level of vocational training, **special subjects** include practical and theoretical instruction specific to part of the training. This provides the trainee with specific vocational qualifications.

2.2.51
Optional subjects should cater for the trainees' interests. Subjects must be offered which are important for continuing training and for admission to continuing training. In addition, optional subjects can be offered with a view to qualification requirements and employment opportunities within the local area.

2.2.52
The theoretical part of vocational training consists of these types of subjects from the second school period onwards. The subjects are weighted against each another so that basic subjects and area subjects each represent one third, whereas special subjects and optional subjects each represent one sixth.

Subject-structure
Example: 80 weeks of schooling



Source: The Royal Danish School of Educational Studies for Teachers at Commercial and Technical Colleges (SEL).

2.2.53
While the individual schools decide which optional subjects they offer, the trade committees have a decisive influence on basic subjects, area subjects and special subjects.

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2.2.54
Occupational emphasis lies mainly within area subjects and special subjects, since it is in these areas, in particular, that the trainees get acquainted with the theoretical and practical aspects of their training. The trade committees define area subjects and special subjects and set objectives and create frameworks for instruction. All approved basic subjects are listed in the basic subjects catalogue, which is revised regularly. There are currently some 50 subjects which are approved by the Minister. The trade committees select the basic subjects that are to be included in the specific training courses.

2.2.55
It should be mentioned that the subject structure in commercial training schools differs from this and will be examined in paragraph 2.2.81.

Syllabuses and examinations

2.2.56
Objectives and general frameworks for individual training courses are specified in the executive orders for education. These are drawn up by the trade committees and approved by the Ministry of Education. The executive order stipulates which subject areas, basic subjects, area subjects and special subjects training will include and determines the objectives which trainees must attain within the individual subjects and how assessment is carried out.

2.2.57
The special feature of the new system is that basic subjects, area subjects and special subjects are syllabus subjects and not timetable subjects. That is to say, the executive order for education defines the principles of the contents, but the syllabus subjects are not a description of the actual contents of training. The individual centre plans the contents itself, in collaboration with the local training committees, and in this way transposes the principles into practical instruction.

2.2.58
Management by objectives and framework rules imply that syllabuses containing the description of the training courses are drawn up locally. The overall objectives must be achieved because they thus ensure a minimum requirement of the training structure and of vocational qualification. However, the actual contents of training varies from school to school, as does the profile of instruction. Trainees will not necessarily find the names of the syllabus subjects in the timetable, as a number of subjects are in many instances combined.

2.2.59
Instruction itself also varies. Requirements are built into the reform, to the effect that, in future, instruction will aim towards integration, so that as far as possible trainees acquire theoretical knowledge through working with practical problems, and the general parts of training are taught in close association with the vocational part.

2.2.60
As a general rule, training in the technical sector will continue to culminate in the apprentices' final examination. There will also be regular assessment throughout training to assure that vocational training acquires a higher theoretical standard than hitherto. One new requirement of the law is that basic vocational training provides qualifications for further training.

2.2.61
The performance of trainees is assessed and marks are awarded on a 13-point scale, or on a similar scale approved by the Minister. The form of assessment varies depending on the particular subject. In some subjects oral or written examinations are held, with papers set centrally. In other subjects, the teacher assesses the trainees' performance and effort in lessons and awards a mark on this basis.

The papers for tests and examinations are set either by the school or the Ministry. Internal and external examiners will normally be teachers at a vocational training centre, except in the case of the trainees' final examination, for which external examiners are appointed by the trade committees from persons involved in the trade. In traditional craftsman's trades, assessment is carried out by inspectors appointed by a special trainee examination committee.

2.2.62
In technical schools, tests and examinations are a new element in measuring continuity of quality. In commercial schools, regular assessment with a combination of central and local tests has been common practice for many years.

The on-the-job training element of vocational training

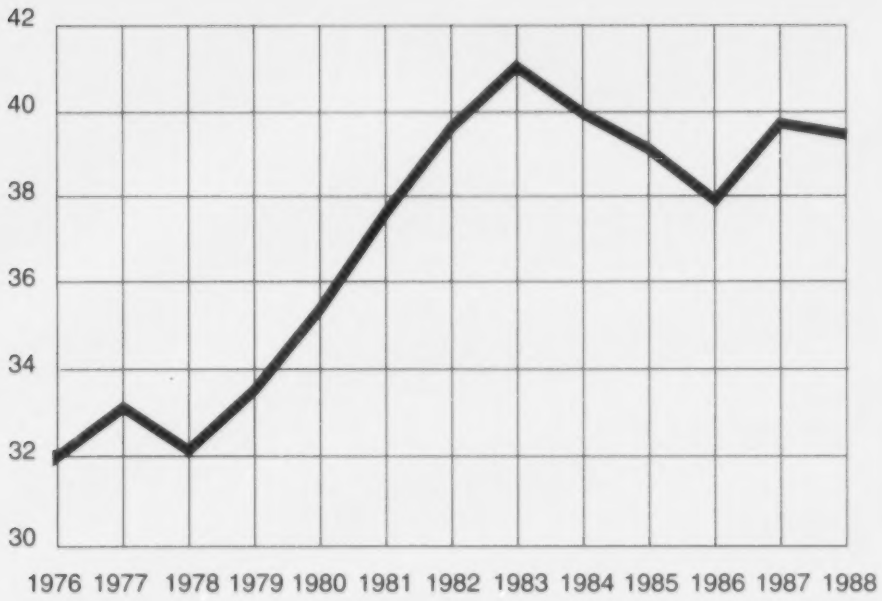
2.2.63
The basic structure of vocational training is alternance training, in which practical training in the company accounts for about two thirds of total training time. On-the-job training takes place within one or several companies which have been approved by the relevant trade committee for practical work experience in the course concerned. Alternance training is based on a training contract between trainee and company.

2.2.64
On 1 January 1991, vocational schools took over procurement of on-the-job training places, which had hitherto been the task of the employment service. Existing provisions have been relaxed to improve opportunities for concluding combination agreements between several highly-specialized companies.

2.2.65
When the trainee finds a training place, a training contract is concluded between trainee and the company. The contract covers all aspects of training, on-the-job training periods, theoretical training periods and final examinations. The training contract is a formal document and must be drawn up on a special form approved by the Minister. Trainees who have not become of age must have their parents' consent to enter into a training contract. The first three months of the in-company training is always a probationary period. Either party can terminate the contract within this period without notice and without giving reason for termination. After three months have elapsed the contract cannot be revoked unless the parties agree mutually to terminate the contractual relationship. If one of the parties wishes to terminate the contract, the matter can be brought before the trade committee, which will try to reach an amicable settlement between the disputing parties. If it fails to do so, the case can be referred to an arbitration board. Pay and conditions are regulated through collective bargaining agreements, which apply even if none of the parties to the contract is a trade union member.

2.2.66
Trainee wage levels are illustrated in the table below.

Trainees' wages as a percentage of skilled workers' wages



Source: Danish Employers' Association's statistics.

2.2.67
Schools and companies providing practical work experience are obliged to exchange information which is of benefit to the trainee's education. The trade committees must ensure that the trainees receive good, all-round training. In Denmark, there are no formal requirements for instructors providing on-the-job instruction in companies. Practical training within the company takes the form of instruction by the company's master craftsmen.

2.2.68
Trainees concluding a training contract have a right to enter a vocational training school in order to be able to conclude the theoretical part of alternance training. The school is obliged to ensure that the trainee can complete his training, even if it should stop offering that particular training course. In this instance the school will be responsible for securing for the trainee a place at another training school offering the course at no extra cost to the trainee or to the company providing the practical training. Among the schools, agreements are concluded to ensure that the specialized parts of training may be offered on terms that will ensure classes with a reasonable number of trainees.

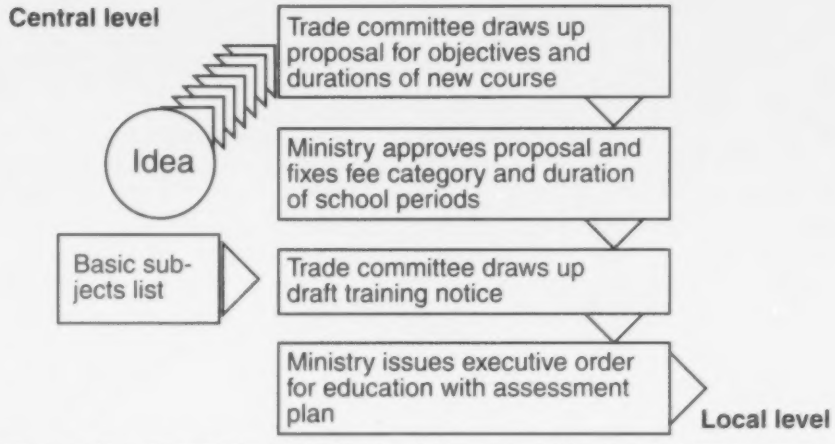
2.2.69
Legislation states that vocational schools and vocational training are subject to a number of regulations on training schemes issued by the Minister for Education. The 'General Executive Order' (Hovedbekendtgorelse) of 12 February 1990, makes provision for approval of vocational training schemes.

2.2.70
The employers' and employees' organizations are required to appoint a number of trade committees, on which they have equal representation. The trade committees (of which there are at present 85) must monitor all training on which there is legislation. The trade committees also have the task of taking the initiative in setting up new courses.

2.2.71
Should a trade committee wish to recommend the creation of a new training scheme, the recommendation must be accompanied by statistical data. The committee must, for example, provide information on forecasted opportunities for employment and practical work experience, on the estimated annual intake for the scheme, and information on any existing analyses and forecasts concerning qualification requirements in this area.

The following table shows the decision-making procedure relating to the creation and approval of new vocational training schemes.

Training course from design to implementation


Central level
Trade committee draws up proposal for objectives and durations of new course
Idea
Ministry approves proposal and fixes fee category and duration of school periods
Basic subjects list
Trade committee draws up draft training notice
Ministry issues executive order for education with assessment plan
Local level

Source: The Royal Danish School of Educational Studies for Teachers at Technical and Commercial Colleges, 1990.

2.2.72
At central level the proposal is sent to the Minister who decides on the basis of the Vocational Training Advisory Council's recommendation, on approval of the training course (see paragraph 3.1.8). In principle, the trade committees develop the objectives and framework for the individual training courses and the Ministry decides on the duration of theoretical instruction and on financial issues.

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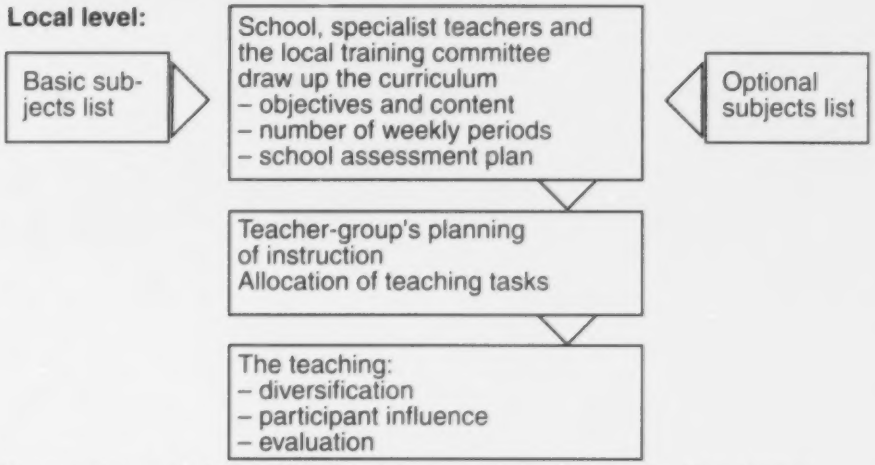
An executive order for education must be issued for each course containing provisions on the purpose, structure, aims of the courses involved, the aims and general framework for the academic part of training and on-the-job training, including basic subjects which the trade committee has selected, a description of aims and contents of area subjects and special subjects, provisions for on-the-job training and for assessment and final examinations. The executive order for education also makes provision for the course certificates for the particular training courses. These orders contain all specific provisions relating to the course. They serve as the basis for the schools' planning and organization of the training course.

This simplifies the regulatory basis and thus facilitates management by objectives. It is not possible to lay down binding guidelines for the academic part of training centrally and the scope given to the individual schools is determined by the new regulatory structure.

2.2.73
When the executive order for education has received ministerial approval, it is submitted to the schools. At local levels the schools decide to what extent the particular training course is going to be offered. The school management decides upon the annual programme for the school's activities, including vocational training. In special cases, however, the Minister for Education can stipulate that a school offers a particular vocational training course.

If the school decides to offer the course, the approval of the Ministry of Education must be obtained. However, the school may receive approval for training which it selects not to offer. A training course which has not been approved can be offered by a school for a maximum period of two years. The task of the school in adopting a vocational training course is demonstrated in the table below.

Training course from design to implementation – local level



Source: The Royal Danish School of Educational Studies for Teachers at Technical and Commercial Colleges (SEL), 1990.

2.2.74
As was the case previously, training courses are ascribed to eight main vocational areas and this is now provided for by legislation.

- Construction industries
- Graphic industries
- Commerce, commercial trades and public administration
- Iron and metal industries
- Agriculture
- Road transport
- Food industries
- Service trades

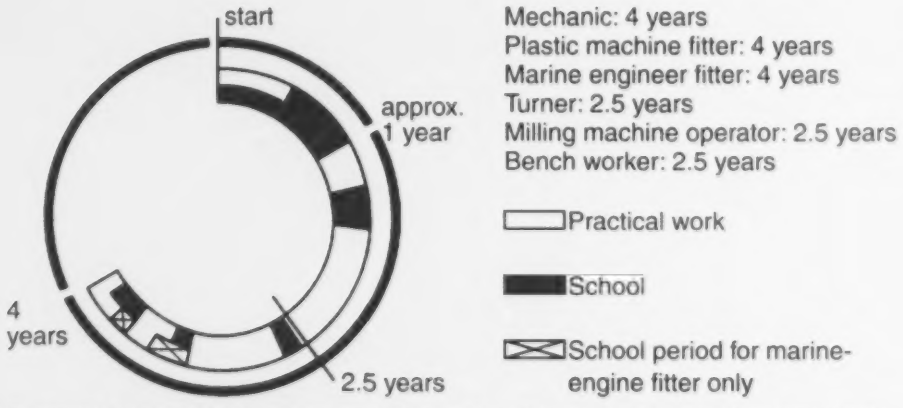
A main vocational area comprises several areas of training and employment characterized by uniformity of tasks and functions.

2.2.75
The main vocational areas which had been drawn up previously have not been retained following the reform. It is expected that the Vocational Training Advisory Council will gradually group training into main vocational areas on the basis of the common features of the training courses with regard to basic subjects. This has not yet taken place and will be a complex, time-consuming procedure.

2.2.76
To illustrate the structure and duration of training courses, we can examine training in engineering and the related special subjects:

In the figure, the circle represents the duration and distribution of school periods and on-the-job training periods. Each training course includes a number of specializations. If a trainee chooses training in engineering, six specializations are possible.

Engineering training with specializations



Source: Ministry of Education and Research: Guide – Jobs and Training, 1991.

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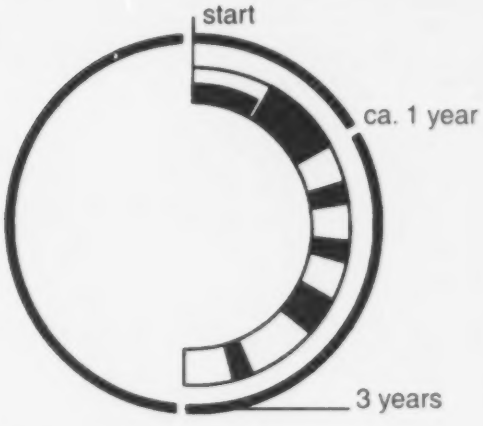
2.2.77
A similar example is driver training. Previously, there were three separate driver training courses. In the new system, the trainee goes on driver training and can choose between 11 special areas.

Driver training courses and specializations



Distribution/piece goods: 3 years
Export: 3 years
Removals/furniture transport: 3 years
Consumer goods transport: 3 years
Container transport: 3 years
Refrigerated transport: 3 years
Contractors' transport: 3 years
Tanker transport: 3 years
Special transport: 3 years
Live animal transport: 3 years
Refuse and sludge collection: 3 years

Practical work
School

Source: Ministry of Education and Research: Guide – Jobs and Training, 1991.

2.2.78
There are a total of 80 vocational training courses in the technical sector. With regard to structure, duration and specializations, they are similar to the two examples shown. Usual duration is four years and training varies from two years (industrial worker) to five and a half years (industrial engineer).

Commerce and clerical sector

2.2.79
The Act on vocational training contains two particular clauses, referring to commercial and clerical training. The training structure and subject structure can differ from the basic framework of the Act.

The five trade committees within the commerce and clerical sector have decided to specify these as conditions for training.

2.2.80
There are two admission routes into the system. The school route is organized as a combined first and second school period with a total first part comprising 40 weeks of schooling as opposed to the technical schools, but still under the EFG (initial training) Law. Training may also start through the practical work experience route, where the trainees conclude a training contract with a company before they commence training. During the first year of on-the-job training, the trainee frequently takes school courses for a total of 18 weeks which, however, must not be in succession. After completion of the first year, the trainees do identical training, regardless of their admission route. Trainees who choose the practical work experience route are paid throughout training.

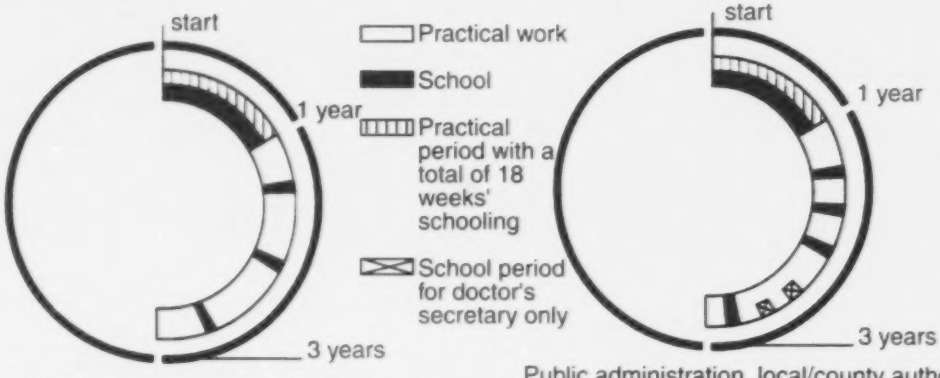
2.2.81
The subject structure also differs from the normal training under the Act, as basic subjects replace area subjects in HG (initial commercial training), which is the designation for the combined first and second school periods. The eight basic subjects are identical in all vocational training paths within the commercial and clerical sector and they make up five sixths of the subjects in HG, the optional subjects accounting for the remaining one sixth. The eight basic subjects are:

- Sales and service
- English
- Another foreign language
- Information processing
- Accountancy and business finance
- Danish
- Civic instruction, commerce, and culture
- Economics

2.2.82
Five vocational courses are offered in the commerce and clerical sector, namely clerical, wholesale trade, sales assistant, display artist and computer assistant. The second part is alternance training, with schooling comprising three periods of two weeks, with extensive specialization.

2.2.83
This is illustrated by the example of clerical training in which trainees have eight specializations to choose from, and where there is a total of six weeks' schooling during the period of practical work experience. If specializations in local/county authority studies or central government is selected, the schooling comprises eight weeks. Trainees choosing the doctor's secretary training have a total of 12 weeks of schooling.

Clerical training with specializations



Clerical worker, all-round: 3 years
Clerical worker, accounts: 3 years
Clerical worker, travel industry: 3 years
Lawyer's secretary: 3 years
Clerical worker, forwarding and shipping: 3 years

Public administration, local/county authority: 3 years
Public administration, central government: 3 years
Doctor's secretary, public administration: 3 years

Source: Ministry of Education and Research Guide – Jobs and Training, 1991.

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2.2.84
Training as a computer assistant is purely school training and is the only vocational training of this nature. The trainees do not enter on-the-job training and consequently can only choose the school route into training.

2.2.85
At present the finance sector (banks, insurance companies, etc.) has no basic vocational training. However a proposal for an executive order, which will differ somewhat from the other training courses in the commercial and clerical sector, is in the process of formulation.

The Act on provision of trainee and on-the-job training places

2.2.86
Since the 1970s, the shortage of on-the-job training places has been a major problem for vocational training. In 1990 the Government set up a special 'Technician committee', composed of the Danish Employers' Association (DA), the National Federation of Trade Unions (LO), the National Association of Local Authorities, the County Councils Association, and a number of ministries, with the task of formulating proposals relating to the search for on-the-job training places and to issues relating to young unemployed persons. The committee stated that the apprentice and on-the-job training issue is the key to a solution for youth unemployment. It recommended that the campaign, the employment service and the registration of apprentice and on-the-job training places should be transferred to the vocational schools as from 1 January 1991. In 1990, the 'Technician Committee' also adopted stop-gap measures enabling vocational training schools to offer schooling which totally or partially replaces on-the-job training in companies.

2.2.87
In 1990, a total of 34 000 trainees had on-the-job training places, while 6 000 were unable to find such places. In the summer of 1990, the Act on apprenticeship and on-the-job training places came into force, giving all young persons a genuine opportunity to complete training, even if unable to find an on-the-job training place with a company. In all, 1 754 young people finished training at a vocational training school in 1990, but could not obtain practical work experience and commenced a school-based trade training course. A total of 59 schools throughout 40 towns offer instruction in 20 different paths and five special transitional training courses providing an opportunity to change over to on-the-job training in other training courses.

2.2.88
The aim is to extend schooling so that the trainees can be released to practical work experience with companies during the school period. Young people may, however, complete training at school exclusively with workshop instruction, if they cannot obtain an on-the-job place with a company. The requirement for commencing a school practical experience training course is that trainees should be capable, geographically mobile, versatile, and actively seeking practical work experience. The trainees must accept apprenticeship and in-company places offered. Failure to do so means they cannot continue workshop training. Training delivered as combined school and on-the-job training, or purely as training at a workshop school, provides full vocational training and the trainees receive the normal training certificate on completing the course.

2.2.89
Trainees receive normal apprentice pay during training. This is funded by the employers through contributions to the fund for reimbursement to employers accepting trainees (AER). The employers make a general contribution, which in 1991 amounted to DKR 400 per employee. The employers can deduct DKR 6 000 annually per trainee and thereby reduce their contribution to workshop instruction. The schools are paid through special grants for setting up workshop instruction. Expenses are covered by the AER.

2.2.90
The objectives and frameworks for training to compensate for in-company practical work experience are set by the trade committees. Although the alternance training principle is maintained by the social partners to be the best route to trade training, the workshop school guarantee will continue as long as the groups of young people seeking training are large.

2.2.91
It should be noted that many young people not having a training contract do not wish to accept workshop instruction. Figures for February 1991 show that, of the EFG trainees who completed the basic year in 1990, 37% (13 615) entered on-the-job training contracts. In the 1990 class year, 3 867 trainees, representing 11%, were seeking on-the-job training places. In all, 39% of the trainees started a different training course. Of the some 4 000 still seeking an on-the-job training place in February 1991, only 1 607 were receiving instruction at vocational schools compensating for on-the-job training. (Ministry of Education, Newsletter, 2 April 1991.)

Social, welfare, and health training

2.2.92
With the Act on social welfare, and health training of June 1990, a whole new structure was set up for basic social, nursing, and care training in Denmark. The new training courses commenced on 1 January 1991 at 16 schools managed by the county councils, which also finance the courses. With the new reform, the number of occupational categories diminished and the trainees obtained broader qualifications and greater versatility. The training courses increased in duration.

2.2.93
The training structure is a coordinated training system with three phases. The first phase is a one-year trainee course on elementary tasks of nursing and care, and is organized as alternance training with practical work experience in the local authority areas; one third of the training period comprises academic instruction and two thirds practical training. On completing courses, the trainee acquires the title of 'social welfare and health assistant'. It is expected that some 7 000 will be trained annually, the first trainees began training on 1 January 1991.

Phase I trainees can then go on to phase II trainee education, to which others may also be admitted. The phase II course lasts one and a half years and provides training on independently handling nurses' tasks, or work with psychiatric patients. Trained persons for phase II acquire the occupational title of 'social, welfare and health worker'. The number trained is estimated to be 3 200 annually.

Phase III is the continuing social welfare and health training for nurses, midwives, social workers/welfare officers, ergotherapists and physiotherapists. Trainees from phase II can seek admission through instruction and preparing for examinations in the relevant academic subjects. The basic training will thus be a new admission route to the abovementioned continuing training courses, parallel to university entrance examinations.

2.2.94
There are a number of admission routes to these training courses. Admission for young persons can be direct from the ninth form of primary and lower secondary school into the intake year. A trainee place within a local authority area is a prerequisite for admission and no wages are paid during this part of training. The intake year is not compulsory, but trainees are guaranteed admission to phase I of training. The normal admission route for young people is the 10th form and for adults is admission to phase I, where a condition for acceptance is a trainee place within the local authority area. It is not possible to start training without the assurance of a trainee place, and some local authorities or county authorities are fixing the number of trainee places on the basis of assessments of future demand for labour.

2.2.95
Central objectives and frameworks are drawn up for the new social welfare and health training courses (SOS) by the Ministry of Education, while other issues are referred to the county authorities, who have very great powers in determining size, admission requirements, management of school funding, and for planning training and education. Other ministries are also involved in making provisions for further social welfare and health training.

2.2.96
Intake to the new training courses, which replace the older courses for home helps, assistant nurses, nursing home assistants, male nurses, and employment advisers, has been very high. Data supplied by the county authorities show that there are six to 10 times more applicants than places. There were a total of 6 000 places on phase I in 1991. The great majority of the applicants for the basic courses are women in their mid-20s with at least 10 years' schooling and vocational experience. Despite the large number of applicants for basic training, very few applications have been received for the intake year of the new training courses, which can be applied for directly from the ninth year. The intake year has had only upwards of 300 applicants and has four times that capacity.

In the longer term, the social welfare and health training courses are expected to attract many young people who want vocational training in this field. This field of employment is being offered in 1991 for the first time in Denmark as vocationally-oriented training for young people, within a cohesive system of training, which also provides opportunities for further training.

Agricultural training

2.2.97
Within the agricultural sector a number of vocational training courses exist, offered by the technical schools as normal vocational training (see paragraph 2.2.37), agricultural training with specializations such as agricultural assistant, livestock assistant, fish farm assistant, and agricultural machinery operative – all of three years and eight months duration.

2.2.98
The actual agricultural training does not take place at the technical schools, but at the 30 schools of agriculture. In January 1991, the schools of agriculture were transferred to the Ministry of Education, and are now vocational schools in line with technical schools. Agricultural training does not come under the general provisions on vocational training, but is regulated by a special law. As for other vocational schools, schools of agriculture are permitted to offer closely-related vocational training within the agriculture and food sector. The agricultural schools have the normal grant system for vocational schools. This means that depending on the total number of trainees, the schools receive a block grant which they may dispose of freely.

2.2.99
The agricultural training courses maintained their existing structure and scope, with alternance training between school and practical work experience, including an introductory eight-week period at the school. The basic agricultural training course will continue to be youth training based on the ninth form of primary and lower secondary school and with general subjects in line with the other vocational training courses.

2.2.100
Admission is free of charge and there is free choice of school. Under the new scheme, the total level of expenditure on school and training is to remain unchanged at some DKR 200 million annually. The annual intake of trainees at schools of agriculture is 3 500, 2 500 on basic agricultural training courses and 1 000 on continuing training courses.

Vocational training within the upper secondary school system

2.2.101
In 1990, Parliament passed the Act on the higher commercial diploma examination (HHX) and the higher technical diploma examination (HTX). The vocational training courses within the upper secondary school system have thereby been combined under one single legislative act on an independent statutory basis. The Act is a consequence of, and adaptation to, the vocational training reform and represents at the same time a strengthening of upper secondary training, which has several common features with ordinary upper secondary school, both with regard to structure and content.

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2.2.102
The admission routes to HHX and HTX, which hitherto were via EFG basic training have changed to enable suitable trainees to be admitted to upper secondary school vocational training directly from primary and lower secondary school. At the same time, the admission routes are being coordinated with the new introductory parts of the vocational training courses. In future a trainee will be able to start vocational training, continue to the end of the second school period, and then transfer to upper secondary vocational education. The only requirement is that the school considers the trainee to be suitable. Similarly, a trainee admitted directly to HHX or HTX training may choose to transfer to vocational training. In the commercial school sector, the first and second school periods are taken in combination and the combined HHX training consists of this first year period followed by two years of continued upper secondary vocational training. At technical schools, suitable HTX pupils can start a second school period directly and continue on to two-year training. Training is thus of two and a half years' duration. The first school period is not compulsory for HTX students. HHX has a duration of three years, whereas HTX is two and a half or three years, depending on whether the trainee chooses to commence training during the first school period. The normal upper secondary school lasts three years.

2.2.103
As for other training courses, the structure has been changed, through the introduction of more flexible optional subjects. The levels of the subjects are harmonized with those of the upper secondary school, and the trainees have to select, as in the normal upper secondary school, two high level subjects. One third of lessons in training are optional subjects. Although HHX and HTX are similar to the other upper secondary training courses in a variety of ways, they have retained their specific profile and aim primarily at employment in the private sector. The training provides admission to higher education at universities, business colleges, and engineering courses.

2.2.104
The various organizations on the labour market exert influence on HHX and HTX, in that the Vocational Training Advisory Council has set up separate committees for both. These committees advise the Minister on the contents and aims of the two upper secondary vocational training courses.

2.2.105
In 1991, 1 785 pupils commenced HTX, which is now offered at 26 technical schools, whereas a total of 9 980 commenced HHX, offered at all commercial schools.

Admission to further education

2.2.106
An increasing number of young people in Denmark are passing entrance examinations for further training in the ordinary upper secondary school, the HF, the HHX and the HTX. In 1960, 6.8% of intake had passed an entrance examination, whereas in 1990 the percentage had increased to 48.4% (a total of 38 650). The reason for this pronounced increase is that as from 1972 HHX provided access and during the 1980s the number of school leavers rose considerably. With increased intake to HTX the training, an increasing percentage of the intake per year has the opportunity to continue studies.

2.2.107
The main problem in this respect is that many young people are refused further training, despite a marked increase in training places. In 1991, some 22 000 people were refused admittance to further training, when a general restricted and coordinated enrolment system was set up. When calculating the number of persons starting medium and long-term further training as a percentage of an intake with entrance examinations, this amounts to close to 100%. The main problem is that over a number of years a build-up of rejected applicants took place and these enrolled for subsequent years. At present the number of training places is increasing as political policy has initiated conversion of passive unemployment benefits to active training investments in a situation with a permanent unemployment problem.

The table below gives an international comparison of the students' entrance qualifications and the percentage of whose starting on higher training.

Proportion concerned per thousand of age-group obtaining secondary qualifications and entering higher education

	Obtaining secondary qualifications 1987/88	Entering higher education 1987/88	Obtaining secondary qualifications 1990/91	Entering higher education 1990/91
B	510	493	510[2]	493[2]
DK	713	434	759	477[5]
F	340	344	367	442
D	284[1]	296[1]	284[1]	320[5]
GR	485[1]	328[1]	485[1]	328[1]
IRL		288[1,2]	766[6]	325[3]
I	357	269	357[2]	269[2]
L	—	—	532	—
NL	527	394	519	360
P	—	—	—	—
E	353	347	353[2]	384
UK	366[4]	347	398[4]	374

[1] 1986/87.
[2] 1987/88.
[3] Full-time only.
[4] School-leavers with at least five A to C grade GCE 0-levels or equivalent (i.e. general or business and Technical Educational Council certificate and diploma are considered eligible for higher education).
[5] Includes new entrants in postgraduate programmes.
[6] Includes all students sitting upper secondary exam. Entrance to higher education is based on performance in the Leaving Certificate.

Source: OECD in Figures, 1991 and 1992 editions.

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Training on offer to combat youth unemployment

2.2.108
A number of efforts have been made in recent years to motivate jobless young people. These activities are organized by four different ministries (the Ministries of Labour, Culture, Social Affairs, and Education), and the municipalities, in particular, have been entrusted with the task of initiating activities to reduce unemployment through mixed programmes which have training, wage grant and employment projects. In August 1991, a new Social Reform Commission was set up by government to submit proposals in 1992 on policies for motivating the young unemployed.

A brief explanation will be given here of the existing training schemes which aim to combat youth unemployment, namely EIFU in particular training and production schools.

Vocational induction courses for young persons (EIFU)

2.2.109
These courses have been delivered since 1972 with the object of providing broad vocational introduction to the labour-market, to improve opportunities for young people to choose training and/or to obtain employment. The courses are aimed at young people between 15 and 30 years of age.

In 1990, a total of 7 200 young persons, two thirds of them female, took part in such courses. Of this number, 5 000 were under 20 years of age. In 1990, 573 courses were held, comprising 5 210 course-weeks and 2 180 weeks of practical work experience. (The Labour Market Authority, *Training for work and retraining, Statistics,* 1990)

The EIFU courses are organized by the Labour Market Authority and held at one of the 48 EI centres affiliated to the local AMU centres. The courses consist of one course period and one period of practical work experience. The average length of courses is 8 to 10 weeks, plus a practical period normally of four weeks' duration. These courses are divided into week modules, in which the trainees are given workshop-based instruction in different trades and industries. Both general and occupational subjects are included in the course, which also provides help in job-finding. Participants receive a benefit amounting in 1988 to DKR 663 per week. Workshop-based counselling has had good results as a means of channelling trainees into training or occupations.

Production schools

2.2.110

This form of instruction was first set up in the 1970s and has been developed since that date. In June 1990, a new Act on youth schools, production schools, and day-release colleges was passed. This Act states that the function of a production school is to offer combined training and production programmes for jobless young people. School activities embrace both practical and theoretical work. The aim of the schools is to provide participants with the means to start training resulting in a qualification or to obtain employment on the labour market.

Local or county authorities may take the initiative in setting up production schools, but these must be set up as autonomous institutions with a management board made up of representatives of the local authorities and organizations on the local labour-market. Such boards are paid by the schools.

Production schools aim particularly at 14 to 18-year-olds who are tired of school and difficult to motivate; recruitment is from the 'residual group'. Intake to these schools has increased steadily and they have proved to be a worthwhile alternative to primary and lower secondary schooling. Normal attendance is for a duration of six months.

The production schools combine educational and production programmes and produce good school-leaving results. The schools come under the aegis of the Ministry of Cultural Affairs and their philosophy is based upon the old Danish educational tradition from Grundtvig and Kristen Kold, which differs markedly from the more traditional employment programmes with no educational activity. In these schools, production is used as an educational instrument to initiate training.

Specific characteristics of production schools are greater flexibility in the curriculum and teaching methods and a close relationship with the market, since the products are sold under market conditions. Instruction adapts to the actual needs of trainees, as shown by the practical activities. As a result, there are no fixed subjects, although Danish, social studies and arithmetic are taught in all schools. Agriculture, horticulture, fish farming, textiles, carpentry, and handicraft production are the most common areas in these schools. Activities are set in collaboration with the local labour-market representatives.

2.3 Vocationally-oriented adult training

In this section, vocationally-oriented basic training schemes for adults and continuing and upgrading training schemes within the vocational training system are discussed. The field of adult training is very large and lacks transparency. This presentation will concentrate upon adult training with a clearly vocationally-oriented aim based upon legislation from the Ministry of Labour or the Ministry of Education, and which is delivered at vocational schools or AMU centres.

Basic, continuing and upgrading training

2.3.1
The terms basic training, continuing training and upgrading training can be defined as follows.

- **Basic training** relates to generally recognized training conferring the right to exercise a profession. The main forms in Denmark are trade training and the basic technician training in addition to social welfare and health training. Semi-skilled worker training courses are also included in part, since they represent basic vocational training for adult unskilled workers who acquire, through the semi-skilled worker training, occupational competence at a level below that of skilled workers.

- **Continuing training** aims at updating or refreshing knowledge and skills acquired in basic training, including those which are subsequently adopted in basic training. Parts of semi-skilled worker training contain aspects of continuing training.

- **Upgrading training** is training aimed at raising vocational competences one step higher than basic training.

A feature common to all three types of training is that they aim to qualify workers for employment and for exercising a profession. In a period of rapid technological development, continuing training will in many instances aim firstly to provide an introduction to new technologies.

2.3.2
In Denmark, both vocationally-oriented continuing training and semi-skilled worker training are not structured as alternance training, but take place exclusively at vocational schools and AMU centres. However, a certain amount of practical training will be included which is delivered in school workshops and laboratories. Generally speaking the vocationally-oriented upgrading courses comprise a considerable amount of theoretical training, for example basic subjects such as physics, chemistry, mathematics or specialized theoretical technology and material science. Some upgrading courses are exclusively school-based, whereas others take the form of alternance training.

2.3.3
The vocationally-oriented adult training courses will be presented as follows:

- semi-skilled workers' training schemes (paragraph 2.3.4)
- continuing vocational training (paragraph 2.3.18)
- courses for unemployed persons (paragraph 2.3.29)
- vocationally-oriented upgrading training schemes (paragraph 2.3.35)
- training for vocational trainers (paragraph 2.3.49)
- the Act on open education (paragraph 2.3.55)

Semi-skilled workers' training schemes

2.3.4
Since 1960, there has been systematic training for unskilled workers in Denmark. These courses may be termed the third branch of vocationally-oriented training, if alternance or sandwich course vocational training (see paragraph 2.2.29) is termed the first branch, and 'academic' vocational training, training leading to examinations at technical and commercial schools (see paragraph 2.2.101) the second.

2.3.5
Semi-skilled worker courses are part of the labour-market training system and come under the aegis of the Ministry of Labour. Semi-skilled worker training was set up to remedy the shortage of labour in the 1960s, particularly in manufacturing industries. They were created because the nature of job tasks changed from rather simple manual skills, which could be learned directly by taking part in the production process, to more complex skills, for which actual skilled worker training was not required, but which called for training in job skills and technical insight.

2.3.6
The training courses are regulated by the 1985 Act on labour-market training and are based on close cooperation between the social partners to ensure that the courses correspond both to the needs of the individual and the economy as a whole. Courses are organized within trades and industries which are thought to have a need for 'tailor-made' training courses. Currently there are some 500 different courses throughout 25 sectors. The labour-market training courses are designed for the private sector and the areas are metal processing, the construction industry and road transport.

2.3.7
Within each of the 25 sectors, committees have been set up in which workers and employers are represented in equal numbers. These sector committees draw up training programmes for the sector, which are subsequently approved by the Training Advisory Council for semi-skilled workers. This ensures that the sector's own representatives and courses always corresponds with growth and demand within the sectors involved. In certain sectors the committees' area of responsibility correspond to a subdivision in trade committees within the vocational training system, conforming to training guidelines. In other sectors, the sector committees embrace a sector in which several types of skilled workers are represented and, lastly, there are sector areas with no independent basic trade training scheme.

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2.3.8
The semi-skilled labour courses are designed and offered in a coherent modular system, with short courses usually of one to two weeks' duration and content closely targeted on specific job tasks. The modular system comprises a variety of levels and thus enables course participants to enrol in the level corresponding to their qualification and occupational background. At the lowest level, the basic courses, there is no qualification requirement to participate, while at the top end of the scale there are highly-specialized courses with complicated job tasks. A modular system was chosen as it facilitates speedy acquisition of skills in the individual sectors, and ensures that a single course confers admission to the subsequent course. Courses are of one to eight weeks' duration. The modular system also enables courses to be combined into longer, inter-related courses of increasing specialization and complexity. The longer modular courses are of two to seven months' duration.

2.3.9
Courses in the semi-skilled training schemes are practice-oriented and theoretical instruction is related to teaching practical skills. This instruction is given in workshops which resemble the workplace and are equipped to a very high technical standard. Simulation models are often used in cases where equipment would be too expensive.

2.3.10
Since the early 1970s, general subjects such as labour-market conditions, working environment, fire protection, first aid, cooperation and social legislation have been included in the courses. In recent years, general subjects have increased in importance in line with changing qualification requirements on the labour-market. Such general instruction aims to improve the trainees' capabilities to cope with working life and the rising demand for broader qualifications. Qualifications independent of the processes, such as flexibility, teamwork and responsibility are taught through the contents of training and the teaching methods. To ensure a comprehensive orientation the same teacher performs vocational as well as general training in a class and general subjects are included as part of the courses. Success in a particular course culminates in the award of a course certificate.

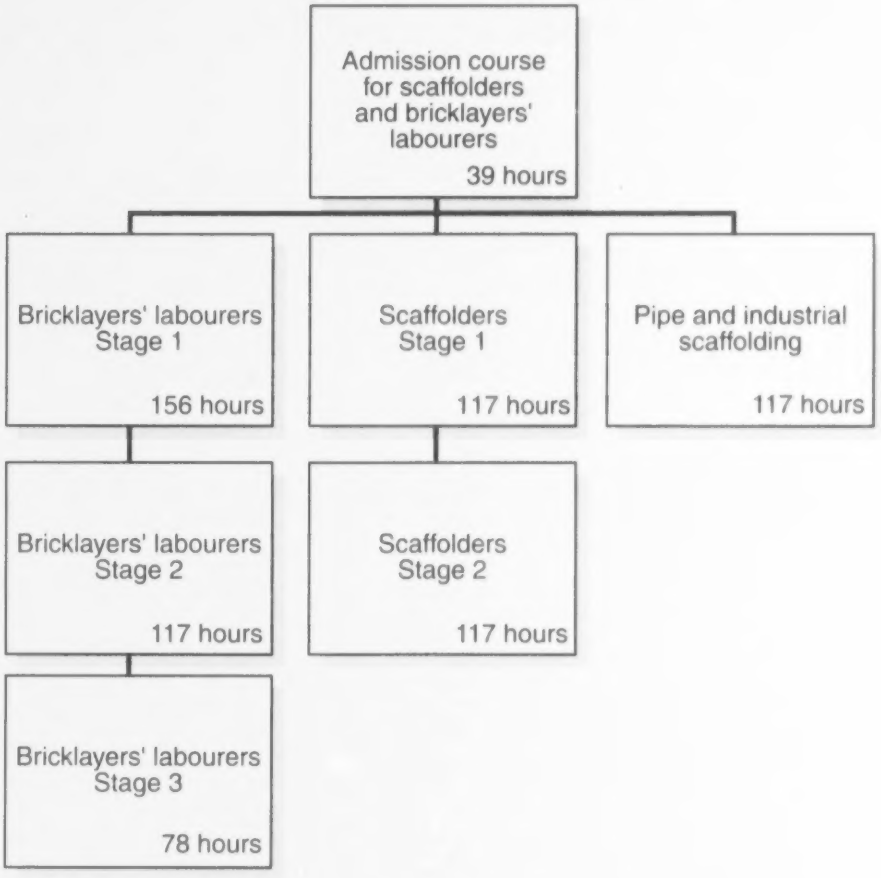
2.3.11
Semi-skilled training is given at 24 AMU centres throughout the country and also in private companies. Training takes place at day schools and is free of charge. Any person over 18 years of age can take part in training provided he is seeking employment within the particular area of work concerned. Some courses are held at residential schools where participants live away from home and receive board and lodging. Participants in day schools are normally paid remuneration for loss of earnings, equal to the daily benefit paid from the State-recognized unemployment fund to which the trainee concerned belongs or could have belonged. Remuneration amounts to a maximum of 90% of wages with a ceiling of DKR 125 000 per year (approxmately ECU 15 700). Remuneration is paid to wage earners in employment and to the unemployed. In addition, a travel allowance may be paid to course participants. The AMU centres are funded by the AUD Fund (see paragraph 3.1.19).

2.3.12
Semi-skilled training is intended primarily as adult training. In 1990, a total of 95 230 participants took part in courses and received instruction for a total of 187 632 trainee-weeks (the total duration of course time numbers participating). In 1990 average class numbers were 10.6. Statistics show that the AMU courses are

attended by participants in periods of unemployment. In 1990, 30.6% of participants in the semi-skilled sector were unemployed, with wide variations from sector to sector. In all72% of the participants in 1990 were male. (Labour-market Authority, *Training of semi-skilled workers. Statistics*, 1990).

2.3.13
As an example of the modular course structure, the courses are illustrated below for bricklayers and scaffolders in the building and construction industry.

Courses for bricklayers and scaffolders



Source: Labour Market Authority: *The Course Manual*, 1991, 'Courses for the semi-skilled'.

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The level of semi-skilled training

2.3.14
It is difficult to place semi-skilled training schemes in relation to trade training in Denmark and in international comparisons innumerable problems arise.

One of the reasons for this is that the scope and level of the various courses vary widely. The courses can be divided roughly into three main categories.

(1) A category in which speed is a main characteristic of the work for which the courses are to provide a qualification. A lot of routine and skill training is required for such work. In these sectors, the semi-skilled training courses serve to recruit, classify and train the labour force. The sectors to which such courses apply are the clothing, textiles and food.

(2) A category which embraces two quantitatively very large sectors, the metal-processing and the building and construction industries, for which there are a multitude of training courses and in which the semi-skilled courses are designed partly on a modular basis to provide a number of basic working skills, and partly in a number of specialized modules providing qualifications aimed at specific semi-skilled worker tasks.

(3) A category within which no basic trade training existed and in which module series have been built up and which, in both content and level, are equivalent to a basic vocational training course, but which are shorter in duration for more specialized functions or subsector requirements. This applies, for example, to the road transport sector which was established as EFG part 2 training in 1977, and also to sectors such as the plastics and processing industries, in which training for young persons has been set up only in recent years.

In both the second and third group, it is possible to deliver training at a level equivalent to basic vocational training, which can be recognized as 'skilled worker-level' on an international comparison.

2.3.15
Admission rules for AMU labour-market centres are as follows: the courses are open to all persons above the age of 18 years, but priorities are established as follows:

- persons with an occupation in the area
- persons with a promise of an occupation in the area
- persons interested in an occupation in the area
- unemployed persons

The fact that unemployed persons are participating on equal terms in ordinary AMU courses is considered an important aspect in combating unemployment.

2.3.16
It should be stressed that an individual's opportunities to follow the whole combined series of modules within a sector area to 'complete' training depends upon what is thought to be reasonable after consultations with the employer. There is, however, clear scope for the employee's individual demands. According to the collective bargaining agreement of 1991, it was agreed that continuing training is based on the local training plan of the individual companies.

2.3.17
Within the metal-processing industry as well as commerce and the clerical sector, it is possible for adults to obtain full vocational recognition as skilled workers without having completed an apprenticeship. Here recognition is based on a combination of courses and work experience. The rules on merit-based transfer and decisions are made by the trade committees.

Continuing training schemes – legislation

2.3.18
There are two different types of continuing training in Denmark, under the aegis of the Ministry of Labour and under that of the Ministry of Education. Since 1965, the Ministry of Labour has been in charge of a course of continuing training for skilled workers as part of labour-market policy. The 1985 Act on labour-market training established a statutory basis for this. This vocationally-oriented continuing training for skilled workers will be described in paragraph 2.3.19.

In 1985, the Ministry of Education adopted Act 271 on vocationally-oriented continuing training. This Act is described in paragraph 2.3.24.

There is a fundamental difference in the management of these two forms of continuing training, in that the continuing training under the Ministry of Labour is based on the initiative and responsibility for implementation of continuing training committees with equal representation of members, whereas continuing training under the Ministry of Education Act requires local initiative in close cooperation between trade, industry and training institutions.

Continuing training of skilled workers

2.3.19
The Ministry of Labour's 1985 Act on labour-market training created the framework for vocationally-oriented training with a narrow labour-market perspective:

- semi-skilled worker training
- continuing training of skilled workers
- re-training
- vocational induction (EI courses)

2.3.20
The aim of continuing training is to maintain, develop, and improve the qualifications of skilled workers. The target group is made up of both employed and unemployed persons with basic training. In 1990, 38.2% of course applicants were unemployed.

On account of rapid technological development, continuing training is designed in such a way that modular courses can be quickly adapted to current demands. The training concept closely resembles that of semi-skilled training courses. Vocational continuing training schemes embrace some 900 different courses in a total of 28 sectors.

2.3.21
A course certificate is awarded to participants upon satisfactory completion of a course. Instruction is free of charge and participants are entitled to compensation for loss of earnings, pursuant to the provisions governing semi-skilled worker courses (see paragraph 2.3.11). Admission requirements are that participants should be at least 18 years of age and should possess either skilled-worker training, or have comparable practical work experience or theoretical knowledge within the trade or industry concerned.

2.3.22
The courses for skilled workers are generally held at technical schools or commercial schools (i.e. schools under the aegis of the Ministry of Education), where the participants have received basic vocational training. Continuing training can also be delivered at technological institutions, companies or AMU centres.

Continuing training courses are planned and managed by the training committee for skilled worker continuing training, which approves training programmes and syllabuses drawn up by the Trade Continuing Training Committee. Both bodies have equal representation of members and are managed by the labour-market partners.

The training courses are funded fully through the AUD fund, into which contributions are paid by all wage-earners and companies on the labour-market, or take the form of IDV or VTP courses (organized and financed through the AMU centres).

2.3.23
In 1990, 62 331 trainees participated in continuing training courses for skilled workers, making a total of 85 279 trainee-weeks. Average class size in 1990 was 12. The majority of participants were male; in 1990, 73%, but there are large differences from sector to sector. In the HK-area, males only represented 21.6% in 1990, whereas the proportion of males in the engineering and metal-processing industries was 97.2%. (The Labour Market Authority, *Continuing Training of Skilled Workers. Statistics*, 1990).

The continuing training Act – Act 271

2.3.24
The Ministry of Education 1985 Act on continuing training aimed to stimulate the development and implementation of vocationally-oriented continuing training and upgrading schemes in close cooperation between trade, industry and training institutions. The purpose of the Act was also to supplement other trade and industry schemes and to increase funding for development activities and to make training demand-based. However, the programme has produced insufficient continuing training schemes. In 1990, rules were made more stringent to ensure more training and it will be necessary for companies to be more involved in developing continuing training projects, both financially and with regard to content.

2.3.25
The aim of the Act, for which there is funding of some DKR 100 million annually, is to create and provide new knowledge, which is intended especially to benefit export firms. Assistance will be given primarily to projects which work with the application of new technology, covering new export markets and improvements in productivity and quality. It is crucial that the activities should stem from the firms' present and future needs, and it is assumed, therefore, that private enterprises will participate in the planning, development, implementation and financing of the activities. The State grants which are being sought from the Ministry of Education will be used especially for development work and for reducing the payments of firms as users.

2.3.26
The target group is specified as non-academic salaried employees, technicians and others employed in the private sector or unemployed. The target group also includes self-employed businessmen, entrepreneurs, married couples working together and married couples working at home. Participants must be at least 25 years of age or have been in the labour market for at least three years.

2.3.27
The activities are managed by the Ministry of Education which has appointed a Continuing Training Advisory Council, the composition of which differs from the normal pattern in Denmark, in that the labour-market organizations have a clearly weaker representation.

2.3.28
Nearly 1 000 research and development projects and something like 1 600 course projects have been carried out since 1986 with assistance from the Ministry of Education under the Act on continuing training. The total funding has been just under DKR 400 million. The Act has been successful particularly for those suppliers of courses who, through contact with local trade and industry and increased funding for development activities, have become equipped qualitatively for a demand-based continuing training strategy. However, the programme has produced insufficient continuing training. In 1991, therefore, the rules were made more stringent, and in order to ensure more training, it is necessary for firms to be involved more in the development of continuing training projects, both financially and with regard to content.

The offer of training to the unemployed

2.3.29
It is difficult to produce a complete picture of the many training initiatives which have been taken in recent years in Denmark to motivate the unemployed. Generally, all laws have been amended since 1989, and various initiatives have been placed under different ministries. Measures for the young jobless, the groups that are particularly vulnerable and the uninsured unemployed are covered by legislation from the Ministry of Social Affairs and the Ministry of Labour. In this area there has been a great deal of activity. The employment service and employment initiatives have now been assigned to the local authorities. In August 1991, a new Social Reform Commission was appointed, which will deal with ways of 'motivating' the unemployed.

This area will not be discussed until later. Presentation will focus on the new initiatives directed towards the insured long-term unemployed, on which the campaign is being focused in order to use training as a means of combating unemployment.

2.3.30
In January 1989, the Act on employment offers came into force. This Act has two elements, namely job offer schemes and offers of training schemes (ATB/UTB), and the training element is also given priority. A total of DKR 5.4 billion is being allocated for the 1989-92 period to combat unemployment – DKR 1.8 billion of this to strengthen the training scheme offer.

Under this Law, a number of new vocationally-oriented adult training schemes have been developed. The Law aims to produce a training offer for jobless persons and to incorporate technical and trade qualifications, general subjects and personality development.

2.3.31
As part of the early motivation, 'inspirational courses' of one to two weeks' duration are being offered. These courses are offered to jobless people after three months' unemployment, if they are considered to be particularly at risk of becoming long-term unemployed. The purpose of the course is to provide inspiration and motivation for the unemployed person and to help him/her plan a future on the labour market, through vocational training or a semi-skilled worker training course. In 1990, 25 000 unemployed people took part in an 'inspirational course'.

2.3.32
The period of unemployment benefit in Denmark is fairly long, namely 30 months, after which the unemployed person must accept a job offer (ATB) if he/she is not to lose entitlement to benefits. For those who have completed their first ATB and have not found a job, it is mandatory to accept a training offer (UTB) after a further six months. A UTB usually takes the form of a course of three to six months' duration aiming to improve the jobless person's chances of finding and maintaining employment with the aid of training and experience. UTB courses are offered in a number of trades and industries, and they are fairly broadly courses. They aim to incorporate induction, guidance, technical and occupational elements, and areas of general personality development. The UTB courses aim to 'cross boundaries and sectors' in the sense that they focus upon the needs of the unemployed person, and then the training institutions must work together to create 'tailor-made' models to suit the participants' requirements. Many trans-sectoral UTB courses of this kind have been set up in recent years.

2.3.33
Upwards of 11 000 persons accepted and started a training course in 1990. If subsequent employment is a criterion for the success of the UTB scheme, then figures for 1990 show that the employment effect is less than 15%. Trends in the labour market have been to the detriment of such efforts and the unemployed. Growing unemployment makes it even more difficult for long-term unemployed to re-enter employment after a UTB course.

2.3.34
The ATB/UTB activities are the responsibility of the Labour Market Authority, which is part of the Ministry of Labour. UTB management is regionalized, assigned to 14 county labour-market committees which assess qualification requirements in the region and assure that such requirements are satisfied by vocational schools, AMU centres and other training institutions.

These institutions compete with one another to obtain a share of the UTB market. Figures for 1990 show that the majority of training places have been set up in AMU centres, commercial schools and technical schools – 65% of all places. VUCs (adult training centres), day colleges and other institutions account for 34% of the places (including 'inspirational courses').

Vocationally-oriented upgrading training schemes

2.3.35
Upgrading schemes are described in the following categories:

- further technical training;
- further commercial training;
- further technical/commercial training;
- part-time training courses resulting in a qualification;
- vocational trainer training.

In addition, there are a number of possibilities of upgrading training within the higher education establishments and universities; but a description of this would go beyond the scope of this study. This presentation confines itself to further training administered by the vocational school department (ESA) of the Ministry of Education.

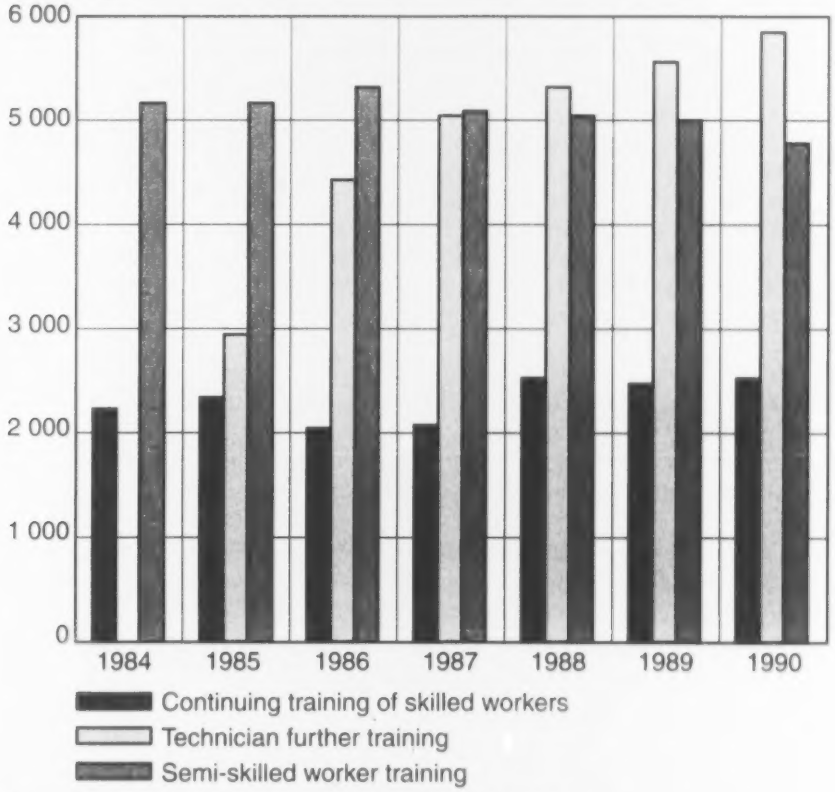
Further technical training

2.3.36
Further technical training is delivered at technical schools and aimed at employment requiring operational, planning, and design skills.

2.3.37
The courses follow on from basic trade training. Instruction is theoretical for the most part and based upon the prior knowledge of the skilled worker. Instruction is arranged in such a way to ensure that general subjects (mathematics, physics, languages, etc.) relate closely to specialized topics, since emphasis is placed on practical application rather than pure theory. Training is given at school and is usually of one to two years' duration. The courses usually culminate in a nationally supervised examination and certificates are awarded. Currently, there are 25 different further technical training courses.

2.3.38
The core of continuing training in Denmark consists of semi-skilled worker training and continuing training for skilled workers and for technicians. Semi-skilled worker training and continuing training for skilled workers are usually short courses of one to two weeks' duration, whereas continuing training for technicians, as already mentioned, is of one to two years' duration.

Continuing training, number of trainees, by class-year, 1984-90



Source: Ministry of Finance, Financial report 1991.

As can be seen, semi-skilled training embraces some 5 000 class-year trainees; but as courses are very short, this covers more than about 100 000 course participants per year. Continuing training of skilled workers comprises 2 500 class-year trainees, comprising more than 70 000 course participants. The amount of short continuing training courses has remained more or less unchanged in recent years and, measured as the number of class-year trainees, is modest and hardly sufficient to satisfy demand for continuing training.

Further training for technicians targeted at raising the qualifications of well-qualified workers embraces just under 6 000 class-year trainees. Compared with the demand for upgrading training, the existing capacity of further training schemes must be considered insufficient to satisfy the demand for continuing training. For the coming years, therefore, there will be continued growth in the number of places.

Further commercial training

2.3.39
To date, little continuing training has been organized within the commercial and clerical sector. Work has only commenced recently on initiating such courses.

2.3.40
Computer technician training ('datamatiker') is a short, vocationally-oriented computer science training course which lasts two and a half years and takes place entirely at school. The course is divided into five terms, with a particular topic for each term. After the first four terms, an oral examination is held on the subjects for this period. During the fifth term, an examination project is prepared and defended orally. Admission to such a course is via one of the four upper secondary school youth training courses, and the course culminates in the award of a certificate.

The training as 'datamatiker' is very broad, in order to give the trainee the opportunity to continue further studies in one or more specialized areas. During the course, the student is confronted with practical problems of increasing complexity. The aim is to provide the student with problem solving skills and to enable him to discover theories and methods for solving problems. In 1990, a total of 250 persons commenced the 'datamatiker' training course.

2.3.41
Marketing economist training was set up in 1990 as internationally oriented further training at commercial schools. The courses are of two years' duration and the entry requirement is successful completion of one of the four upper secondary school youth training programmes.

The target of the course is to provide employment in the private sector in companies engaged in international business in a broader sense, i.e. companies involved in manufacturing, commerce, services and finance. Through the course, the trainees should acquire occupational qualifications at a level to ensure operational participation in marketing and market adaptation of products and services.

Subjects taught include foreign languages and culture, international marketing and economics. Instruction is also given in business economics, the organization of production, business law, administrative systems and statistics. In 1990, the first year of the training course, a total of 920 students were admitted to 14 com-

mercial schools offering the course. The aim is to increase capacity in the next few years for admission to the marketing economist course. This new training path is expected to relieve pressure upon schools of economics and business administration, and is one solution to increasing qualification demands brought about by greater dependence upon international trade, particularly in the EU's internal market.

2.3.42
The commercial school course is a short further-training course set up on local initiatives in cooperation between local commercial schools and the business community. The training courses vary in content, but they are structured on common guidelines and confer a vocational qualification entitling the trainee to perform commercial and administrative functions in business. Entry requirements are the higher commerce examination (HHX), basic vocational training in the commercial and clerical sector or some other equivalent training. Courses are usually of two years' duration and are structured as alternance ('sandwich') courses, with one half of the training time at school and the other half spent as practical training in one or more companies, with which the trainee concludes a contract. The trainee receives remuneration during the practical part of the training.

Academic training takes place at a commercial school and culminates in a nationally organized examination. At present, 15 different commercial schools offer such training.

Further technical/commercial training

2.3.43
Further technical/commercial training is a new type of training path organized in cooperation with technical schools and commercial schools. The object of these combined training courses is to allow students to acquire both technical and commercial qualifications. At present, only the export technician course has been set up, but more courses are planned. Entry requirements are successful completion of one of the four upper secondary school youth training programmes. Training ends with a general examination paper, and certificates are awarded. Training covers four years and alternates between academic instruction and practical training. It is divided into eight units of six months each, four taken at school and four as practical work experience with an export company.

Part-time training courses conferring qualifications

2.3.44
A number of short further training courses have been established at vocational training schools for adults and are organized as part-time courses over one to three years. They have come to be widely used in recent years as upgrading training for people who, after basic vocational training, have gained some practical experience in an occupation. These training courses are offered and funded mainly from public sources, and participants are required to pay a fixed fee, which is often paid by their employers. These courses include, the 'merkonom', 'teknonom', and 'datanom' courses and are generally offered as evening classes.

2.3.45
'Merkonom' and 'datanom' training courses are offered at commercial schools; there are certain common subjects, after which the courses are split into different areas. In each area, a choice can be made between various specialized subjects. Study takes the form of study group work particularly for adults in common and specialized subjects. A written, national examination is held at the end of the course. The curriculum of these training courses includes subjects such as corporate finance, company organization, management and cooperation, accountancy, languages for business, data processing, etc.

2.3.46
Quantitatively, the continuing training activity in this area is dominated by the commercial and administrative sector, which account for some 90% of such training. In 1991 there were some 50 000 trainees undergoing 'merkonom' training and 4 000 being trained in 'datanom'.

2.3.47
The 'teknonom' training is offered at technical schools and culminates in a national examination. The purpose of the course is to give trainees a further qualification in their occupation. The course gives participants an opportunity to acquire knowledge and skills in a variety of areas and, at the same time, to achieve all-round occupational proficiency. In 1991, there were a total of some 8 000 participants in 'teknonom' courses. These are structured on a unit system, combining common courses, i.e. corporate finance and organization, with a number of specialized courses. The latter may be taken individually or in combination, as the participant chooses.

2.3.48
The 'merkonom', 'datanom', and 'teknonom' training courses have been highly successful in the Danish continuing training system. The number of participants has been increasing over recent years and these evening class courses are used by participants with training backgrounds other than basic vocational training. The courses are held in high esteem by employers and are considered a flexible instrument for achieving a qualification and for the further training of manpower.

Training for trainers

2.3.49
A possibility of upgrading training for trainers is training for work as a vocational training teacher. There is no specific training in Denmark for this function. Typically, a special subject training is taken first of all, and after a few years of practical experience, the trained person decides to become a vocational trainer. It is considered important in the Danish system that some two thirds of teachers at technical schools and AMU Centres are skilled workers who have qualified as trainers through basic and further vocational training. This improves conditions for interplay between academic and on-the-job training and implies that the academic part can be transposed better in practical working experiences for which the trainees are meant to qualify.

2.3.50
The Royal Danish School of Educational Studies for Teachers at Technical and Commercial Colleges (SEL), a national institution under the aegis of the Ministry of Education, is responsible for training trainers. Training takes place at SEL's five regional departments and comprises both basic educational science training and special subject continuing and upgrading training. SEL awards examination certificates upon completion of courses.

2.3.51
When commencing employment as vocational trainers, a basic training course, ('paedagogikum'), is taken. This is for teachers at technical schools and is structured as a 'sandwich' course of theory modules alternating with practical instruction, under the guidance of an experienced teacher.

The theoretical part of 'paedagogikum' examines a number of topics in educational science, psychology, and theory and methodology of teaching. Instruction is monitored by participants and use is made of project work. The course ends with a fairly long written project, either carried out individually or in a group, and the theoretical examination is based upon this assignment. The theoretical part of training is closely related to practical problems. The total duration of the 'paedagogikum' is 500 hours; the practical part normally taking place at school where the student teacher has already started his or her training job. Initially, the student follows the advisors lessons and gradually takes over teaching. Adviser and student discuss lessons and subsequently evaluate them. The guidance period, normally lasting 80 hours, ends with the examination in practical teaching skills in which, in the presence of an examiner, the student gives a lesson which he has prepared himself and then describes the educational background to his or her teaching.

2.3.52
For teachers at commercial schools, the content of the 'paedagogikum' is broadly as described above. For the theory part, however, only a three week course in teaching theory is compulsory, whereas instruction in educational theory and psychology takes place as private study, supplemented where necessary by courses organized by SEL. The theoretical part of the 'paedagogikum' culminates in two written examinations in teaching theory and methodology, and psychology. The practical part is run along similar lines to that for teachers at technical schools.

2.3.53
Teachers in labour-market training courses (AMU) do a 'paedagogikum' similar to that for teachers at technical schools.

2.3.54
Continuing and upgrading training for trainers embraces a large number of training courses which are either of a general educational/psychological nature or comprise courses in teaching theory and methodology for particular subjects. These courses have been restructured over recent years with a clear shift from traditional courses towards school-based development and consultancy assistance. The schools themselves formulate their needs and make use of services from the open market in which SEL is but one of many suppliers. The development of trainers' qualifications has been strengthened by this, and continuing training has become largely demand-controlled. Work on a school's specific requirements has become the focus of attention, and new educational principles such as learning by doing have been introduced in recent years.

The Act on open education

2.3.55
The Act on open education of 24 May, 1989 targeted vocationally-oriented adult training courses and aimed to widen the individual's opportunities for improving qualifications on the labour market, by personal effort in leisure time, i.e. focusing primarily upon specific vocationally-oriented courses.

2.3.56
The training courses are offered in modules, so that it is only necessary to participate in the classes actually required. The courses are flexible, enabling the participant to put together his or her own study programme and choose his or her own study pace. Modules can be combined to the equivalent of a full-time course and it is also possible to combine modules from different institutions. Instruction is given during leisure time, enabling participants to continue their normal employment.

2.3.57
Examinations in this context are free of charge and are included in the courses covered by the Act on open education. Those taking the courses in private study must pay the costs of examinations in contrast to those who are following the normal courses.

2.3.58
Initially, a number of training courses already examined came under the Act on open education. They are 'datanom', 'merkonom', 'teknonom' courses, the courses for the commercial schools' nationally supervised examinations in individual subjects, technical schools' individual subjects, the diploma training in business economics (HD), the diploma training in languages for business (ED), and the language correspondents training course. At present some 160 000 students are taking courses which have come directly under this Act.

2.3.59
All of the subjects offered in full-time courses can in principle also be taken as part-time single subjects. The Ministry of Education has now started to ensure that open training is offered within a number of existing full-time training courses. Each year, decisions will be made as to which subjects are to be offered as single subjects, and which institutions are to offer them.

The 'open university' experiment has been abandoned and has been replaced by the Act on open education. It will also be possible to arrange complete university courses as part-time studies at the student's own pace.

2.3.60
Under the Act, institutions which offer open adult training receive a fixed grant per class/year student and can demand, in addition, payment by participants of up to 20% of the costs.

2.3.61
The Act on open education is an important innovation in Danish training policy and in future will form a central framework for vocationally-oriented adult training schemes. It is a 'discount' model, in the sense that training is cheaper than in the usual models. Instruction is given during periods in which buildings and equipment are not being used and the training courses are part-time based upon leisure-time studies. Participants therefore do not receive grants from the national educational grants system, but finance study from their income. Training under the Act on open education involves participants paying 20% of the actual costs.

The Act is expected to generate innovation in the form of increased modularization of training offers and greater emphasis on distance education, which helps to overcome geographical and time barriers.

MANAGEMENT AND FINANCE

3.1 Management and administration

Introduction

3.1.1
As can be seen from the presentation in Section 2, the vocational training system in Denmark embraces a very broad spectrum and comes under a number of ministries and managing bodies. This section will be devoted for the greater part to examining common new management philosophies. These regulatory mechanisms can be summarized by the terms decentralization, management by objectives, and 'taximeter-management'. Characteristic of the Danish system is also the fact that the social partners play an extremely important role – clearly increasing with reforms – in vocational training. It is therefore valid to speak of 'occupational self-management'.

In this sub-section (3.1) we shall examine the management and administration of the vocational training system (EU) and the labour-market training system (AMU). In sub-section 3.2, attention focuses upon funding of vocational and labour-market training schemes.

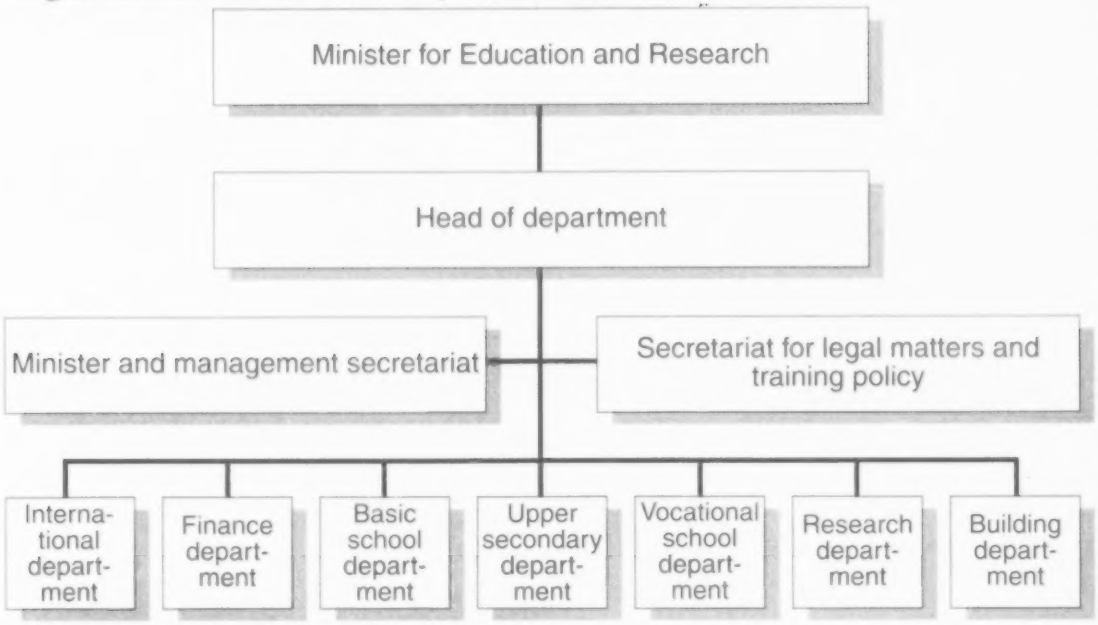
Management and administration of EU and AMU training

3.1.2
Responsibility for management and operation of vocational training schools shifted following the reform of vocational training schools on 1 January 1991. The same applies to responsibility for course contents and for updating the training courses. The reform involved far-reaching decentralization which gave advisory bodies at all levels greater influence and assigned a substantial part of the decision-making power to the 120 vocational schools.

3.1.3
With the transition to management by objectives, the vocational schools were assigned a major part of the tasks. This has facilitated structural changes within the Ministry of Education, accompanied by a 20% staff reduction during the period 1989-93.

As of 1 January 1989, the Ministry of Education abolished the traditional division into one department and a number of subordinate directorates. The directorates which had hitherto existed, including the Directorate for Vocational Training, ceased to exist as independent units and became departments within the ministry. The new organizational structure of the Ministry of Education, in which the Vocational School Department (ESA) is responsible for management of vocational schools, is shown in the table below.

Organization of the Ministry of Education



Source: The Ministry of Education and Research.

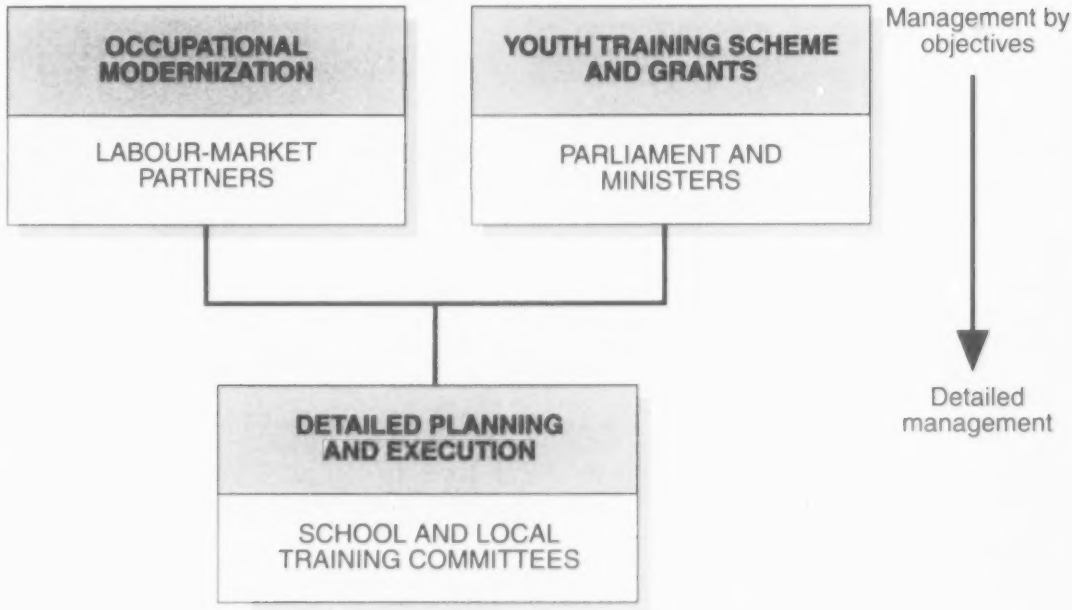
3.1.4
The Ministry's tasks have changed from the traditional tasks of issuing regulations and examining individual cases, to policy formulation and implementation, and specialist expertise within the department has been more closely linked to the policy decision-making process.

3.1.5
Management by objectives replaced the detailed regulatory management which had hitherto existed. From both the financial and educational point of view, the Ministry of Education in cooperation with the Vocational Training Advisory Council and the trade committees will in future set out the objectives and framework for the schools' activities. The actual activities themselves are the responsibility of the schools.

Advisory structure

3.1.6
The partners to whom these new responsibilities have been assigned are primarily the school boards and the trade committees. The newly-established local education committees are jointly responsible for the operation of vocational training with regard to the needs of the labour market and young people.

Management system of vocational training



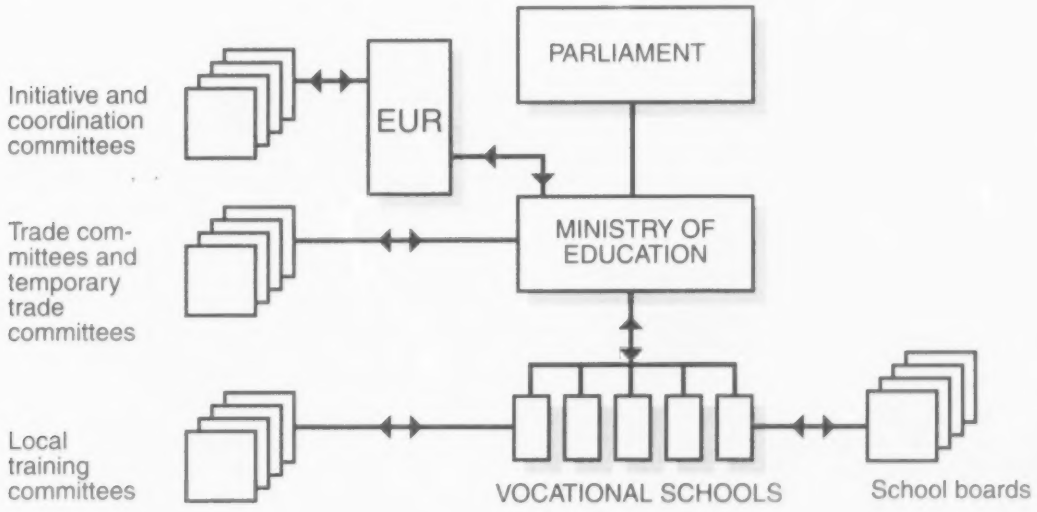
Source: Training consultant Arne Højsteen, conference contribution, November 1988.

The objective and framework bodies at central level are the social partners responsible for updating courses and for the practical work experience part. They also exert great influence upon the academic parts of the training programmes. The Ministry of Education is responsible for ensuring that the vocational training courses are broad in scope and that they come under grant entitlement.

3.1.7
The detailed planning and organization of the courses are decentralized to school level, where school boards, in particular, have greater influence and where local training committees decide on the curricula of courses. The new decision-making system involves in practice two forms of decentralization under management by objectives: the decision-making power is transferred from the Ministry to school boards and responsibility is delegated from the trade committees to local representatives in the local training committees. What formerly was detailed management by central government is now effectively replaced by a higher degree of autonomy for the schools.

3.1.8
The roles of the advisory bodies have changed and the advisory structures have been simplified. The reform aimed at attaining greater occupational autonomy for the labour-market partners with regard to updating the training programmes' occupational aims and content. Occupational self-management has been supplemented by more openness in relation to initiatives from schools, companies, etc. and can help to ensure comprehensive and rapid updating of training.

The advisory bodies within the decision-making system



Source: Training consultant Arne Højsteen, conference contribution, November 1988.

3.1.9
The Vocational Training Advisory Council (EUR) has to concentrate, at central level, on general and interrelational functions. EUR is the Ministry's advisory body for issues concerning training policy and for the aims and structure of vocational training. The Minister consults the Council on all matters concerning, for example, approval of vocational schools, approval of certain courses at particular schools, deviations from the law, etc.

The 20 members of EUR are appointed by the social partners, which are equally represented. The EUR chairperson is appointed by the Minister for Education. In addition to the abovementioned members, the EUR has two manager and teacher representatives from the commercial and the technical schools as representatives. At central level, as at all levels in the decision-making process, the labour-market partners are in the majority.

3.1.10
The EUR can set up action and coordination committees to issue an opinion on the need for better coordination of the training courses and, where applicable, for combining courses. Provisionally, five action and coordination committees have been set up to ensure that vocational training is not too closely linked to trade-specific perspectives, as sometimes presented by the trade committees. In addition, on the recommendation of the EUR, the Minister can set up temporary trade committees, particularly where initiatives are taken to design a course within a new area which training had previously not covered.

3.1.11
The trade committees, a total of 85, exert decisive influence on the occupational aspects of training. As provided by Act 211, they are appointed by the employer and employee organizations, with equal representation. The trade committees have their own secretariats and budgets. They make decisions on the duration and structure of individual courses, including the breakdown of academic and practical instruction, training objectives, frameworks for the contents of training, practical training and evaluation programmes for the general area subjects and special subjects. Trade committees are responsible for updating courses and proposing and obtaining approval for establishing new courses or changing existing ones. Innovative capacity has been strengthened through reform.

3.1.12
The model below illustrates the development of 'occupational self-management' and summarizes the role of the trade committees in an historical perspective. The trend which started in the 1920s in relation to cooperation between the social partners and central government was extended by the Apprenticeship Acts of 1937 and 1956 and continued in the EU reform of 1989. It can be clearly seen from the Act that the trade committees will continue to be the backbone of the advisory system.

The summary also shows clearly that the trade committees' role has been strengthened through reform.

The role of the trade committees

Act	Practical part	Academic part	Apprentice's final exam
Act on Apprentices 1921	—	—	Recommendation for final exam
Act on Apprentices 1937	Recommendation to Advisory Council for Apprentices, which specifies	Recommendation on duration of schooling to Minister, who decides	Decides
Act on Apprentices 1956	Recommendation to Advisory Council for Apprentices, which specifies	Recommendation on objectives and contents to Minister, who decides	Decides
EFG Act 1977 Promulgation 1981	Recommends to EUU, which recommends to Minister, who decides	Recommends to EUU, which recommends to Minister, who decides	Decides
Draft Act 1988	Decides	Decides within limits laid down by Minister, according to recommendation from EUR	Decides

Source: Uddannelse No 3 1988, *Erhvervsuddannelsernes udvikling i en samfundsmaessig sammenhaeng* (Development of vocational training within a social context), Karl-Johan Madsen.

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Vocational schools

3.1.13
The new system decentralizes a number of functions to the school level. The individual vocational school has the right and duty to deal with most financial and training matters itself, and the school's board, together with the school principal, now has increased powers.

3.1.14
The board is the top management body of the school and in future administers block grants which the government provides instead of earmarked grants. The board takes decisions in collaboration with local interests, on vocational training courses, continuing training, etc., which the school wishes to offer. Together with the school principal, the board is also responsible for arranging the details of training although major responsibility lies with the local training committees.

The board is composed of 6 to 12 members, one of whom is appointed by the county council and at least one by the municipal councils. The board's composition must be such that it covers the occupational sphere of the school, and the social partners must be equally represented. Teachers and administrative personnel in the school are each represented by one representative with no vote. The school's pupils are represented by two representatives who are also not entitled to vote.

3.1.15
The main function of the local training committees is to assist the schools in planning contents of the courses given. They also provide advice in all matters concerning training at the school, and help strengthen contact between the school and the local labour market. One or more local training committees are appointed for each school, to cover the training courses offered. The majority in any committee must be made up of representatives of the organizations which have a seat on the particular trade committee concerned.

3.1.16
The Minister of Education draws up assessment schedules for the individual training courses in so far as general area subjects and special subjects are concerned, in line with the decisions of the trade committees. Assessment and/or examinations are carried out when the course ends and the school issues certificates if requirements are met. When the trainee completes on-the-job training in accordance with the rules on practical work experience, the company also awards certificates.

3.1.17
The Certificate of Apprenticeship (journeyman's certificate) is awarded by the trade committee when the school certificate and the on-the-job training certificate have been attained. This ensures recognition of the quality of training and the nature of the training programmes as youth programmes at national level. On account of the important role assigned to the social partners, labour-market approval of the courses is also ensured by this means.

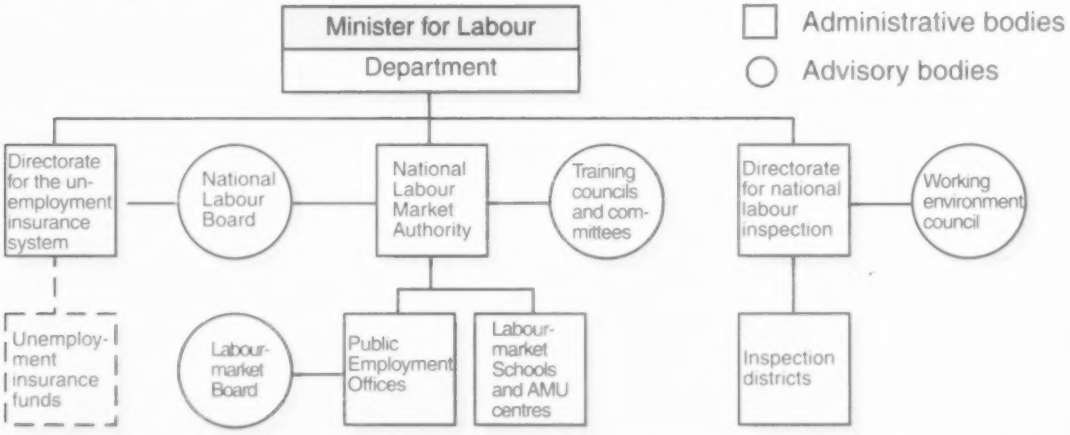
Management system of the labour-market training courses

3.1.18
There have been major changes in the organization of overall management of labour-market policy in Denmark. The National Labour Market Authority (AMS) was set up in 1989. The Ministry of Labour now consists of a Department, the Labour Market Authority, the Directorate for the unemployment insurance system and the Directorate for the National Labour Inspection Service, each with subordinate units.

3.1.19
The Labour Market Authority is indispensable to Danish labour-market policy. The AMS was formed by merging the former AMU Directorate (the Education Directorate) with the Labour Directorate, to produce greater efficiency through better coordination of guidance, employment service and training. This resulted in integration of the employment service system (AF) and labour-market training (AMU). The aim has been to link the labour market's 'demand side' (AF) with the qualification 'supply side' (AMU).

The Labour Market Authority is responsible for the public employment service, vocational guidance, legislation on immigrant workers, monitoring of equal opportunities and programmes to promote mobility and the measures relating to the regulations, implemented in 1989, concerning the supply of labour and training (ATB/UTB). It is also responsible for legislation relating to labour-market training for adults and for management and administration of the AMU centres. The AMS administers a total of 48 EI centres, providing prevocational training for unemployed youth as well as adults including special courses for unemployed women.

3.1.20
Organizational structure of the Ministry of Labour



Note: ___ indicates that the administrative units, etc., are not directly subject to the authorative powers of the Minister for Labour.
Source: inforMISEP, spring 1990, no 29.

In 1991, the Minister for Labour tabled a draft law to establish a single-strand labour-market service which entails changes in the advisory structure in general, but which will scarcely alter the management structure for labour-market training schemes.

3.1.21
Act No 237 of 6 June 1985 made provision for the management of labour-market training. The characteristic feature of the management and administration of labour-market training is the high degree of representation and influence the social partners have.

3.1.22
The Act on labour-market training is a basic law embracing:

- semi-skilled worker training;
- continuing training of skilled workers;
- pre-vocational training.

3.1.23
At the top advisory level there is an Advisory Council for labour-market training which advises the Minister for Labour on issues common to labour-market training and can make, on its own initiative, recommendations to the Minister. The Council comprises one chairperson appointed by the Minister for Labour, eight members appointed by the LO (Danish Federation of Trade Unions) and eight members appointed by the DA (Danish Employers' Confederation).

3.1.24
For each of the three types of training, a training committee is appointed at central level to examine:

- training measures for semi-skilled workers;
- continuing training of skilled workers;
- prevocational training.

3.1.25
The composition of the first two training committees is identical, namely: one Chairman appointed by the Ministry of Labour and eight members appointed by the LO and eight by the DA. In addition, in each committee, two representatives are appointed by the Ministry of Labour, one by the Ministry of Education, and one by the Ministry of Industry.

Training committees have the task of:

- approving programmes and syllabuses for the individual training courses, drawn up by the sector committees (semi-skilled worker-training) or the continuing training committees (continuing training of skilled workers);

- taking initiatives to implement training measures;

- delivering an opinion on the allocation of annual training grants.

3.1.26
The training committee for prevocational training has a different composition; a chairperson appointed by the Ministry of Labour, three members appointed by the LO, three by the DA, two by the Ministry of Labour, one by the Ministry of Education, and three members appointed by municipalities and county councils. The functions of this committee are less specific and consist of providing overall advice and recommendations on requirements for training and grants. The committee is not required to approve training programmes and syllabuses for the individual training schemes.

3.1.27
The sector committees and the occupational continuing training committees play a decisive role in updating labour-market training courses. They are appointed with equal representation of the social partners and consist of 6 to 10 (the sector committees) or 4-10 members (the continuing training committees). There is no government representation on these committees, which correspond to trade committees within youth vocational training schemes. The sector committees have the following functions:

- to identify and make recommendations on training requirements in the sector;
- to formulate proposals for the training committee on training programmes for the sector and syllabuses for training;
- to ensure that the training is carried out in line with the syllabuses.

3.1.28
Between the Labour Market Authority and the AMU centres there has been a certain amount of decentralization through which the 24 AMU centres have acquired greater scope, for example through the introduction of IDV (income-covered companies) training and VTP (company-adapted) training. For the courses the companies are requesting, they pay 100 and 50% respectively of the expenses and in return acquire courses specially adapted to the company. Consideration is being given to greater user payment through general introduction of fees.

3.1.29
During the next three to four years, management by objectives of the instruction given in the labour-market training is to be introduced. This will provide greater scope for local adaptation of training. As for vocational training the AMU is changing over from contents-management to management by objectives and framework rules, while maintaining the nationwide merit-status of the training courses, in order to ensure that participants obtain the same qualifications throughout the country.

3.1.30
Both for semi-skilled worker training and in the continuing training of skilled workers, the achievement of nationwide recognition is sought today by making descriptions of the content of training as well as providing indications on how it is to be delivered. The introduction of management by objectives implies that overall management is ensured through the centralized setting of training objectives, supported by educational guidance and, if necessary, other material – which, however, the individual teacher is not bound by. This gives both the school and the individual teacher greater scope with regard to the form and the method of teaching. The central authorities will maintain responsibility for training and training development and for ensuring that the required qualifications and nationwide recognition are obtained, but responsibility for the development of the tuition itself will lie largely with the schools.

The decision-making system

3.1.31
The following table illustrates the overall structure of responsibilities and competences in the Danish vocational training system.

Responsible bodies (Denmark)

	Basic vocational training	Further vocational training	Continuing training and retraining	Training for the unemployed
NATIONAL LEVEL	1 / 1 3 6 / 1 6 / 1 8	1 / 1 / 1 / 1 8 / 9	1 2 / 1 4 6 7 / 1 6 7	2 / 2 4 5 / 2 4 5 / 9
REGIONAL LEVEL			10	10
SUBREGIONAL PLAN			10	10
ORGANIZATION/ INSTITUTION	(11) / 11 / 11 / 11 13	(11) / 11 / 11 / 11 13 / 11 13	(11) (12) / (11) (12) / 11 12 / 11 12 / 11 / 13	(11) (12) / 11 12 / 11 12 / 11 12 / 11 / 13

1. Ministry of Education and Research
2. Ministry of Labour
3. Vocational Training Committee (EUR)
4. Labour Market Training Authority (AMS)
5. Labour-market training courses (AMU)
6. Trade committee
7. Local trade committee
8. Council for Training and Vocational Guidance
9. Open University
10. Labour Market Authority (AF)
11. Vocational schools
12. AMU Centre
13. Private companies

System management
Management by objectives
Evaluation and certification
Information and guidance

Delivery:

Exclusively school-based
Alternance
Self study
Exclusively in companies

Note: Numbers in brackets refer to organizations/institutions which do not have a major role.

3.1.32
In Denmark, there is a long tradition of social partners cooperating institutionally and playing a decisive role in developing and managing training. The advantages of this, 'occupational self-management' are many and varied. It ensures a thoroughness in preparing new training contents and their acceptance by the organizations representing companies and employees. The training schemes are always assured of labour-market approval.

3.1.33
There is, however, a need to ensure that training schemes receive fresh impetus. This is already happening to a large extent, as there is a tradition of consulting experts within new technological areas and of incorporating qualification studies in preparing new syllabuses.

For an excellent account of the modernization of training as it is taking place, the reader should refer to a PETRA study by John Houmann Sørensen, 'Renewal of vocational training in Denmark' (1990).

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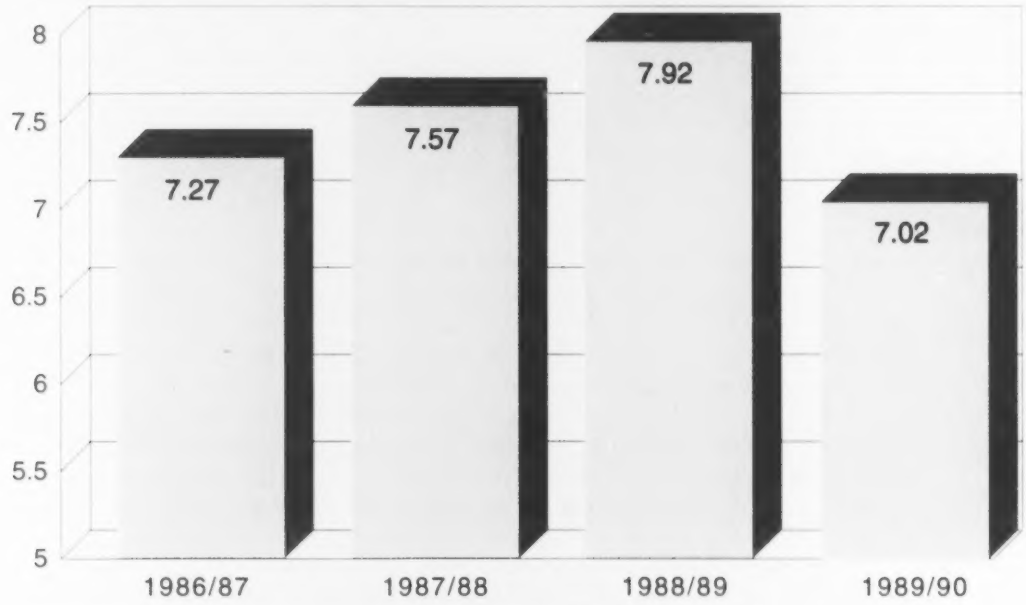
3.2 Financing of vocational training

Public expenditure

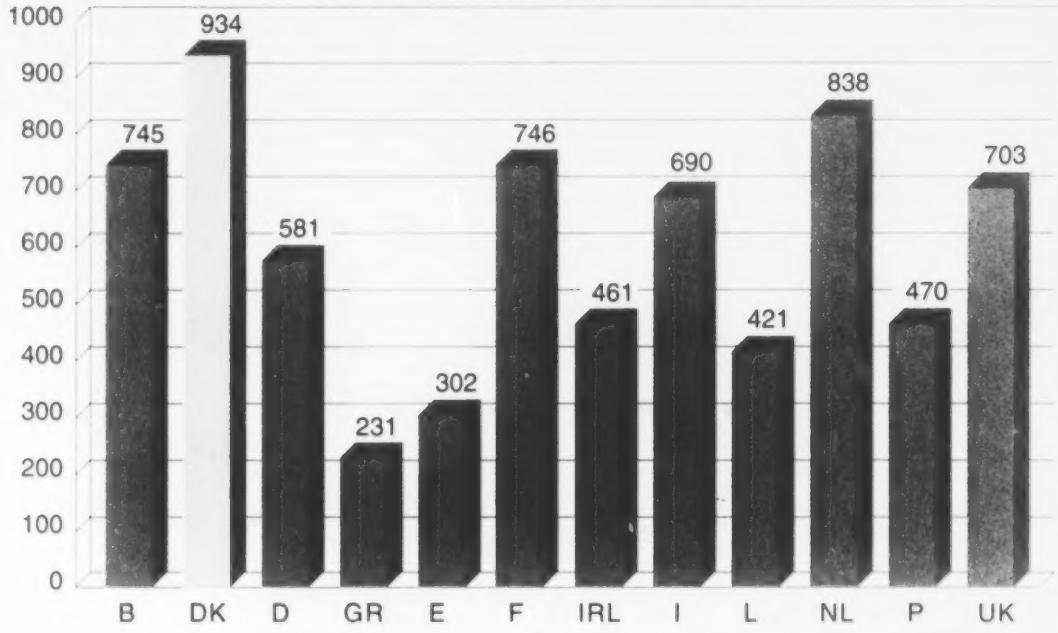
3.2.1
The following tables illustrate that overall education spending in Denmark includes expenditure on vocational training, but excludes expenditure for labour-market training which is budgeted for by the Ministry of Labour. Costs appear as percentages of the GDP and cost per inhabitant.

Public expenditure on education in Denmark (% of GDP)



Source: OECD: Education in OECD countries 1986/87 and 87/88
OECD in figures, 1991, 1992 and 1993 editions.

Public expenditure on education in 1985 (in PPS – purchasing power standard per head of population)



Source: Eurostat - *A Social Portrait of Europe*, 1991.

3.2.2

Vocational training is special, in that it is both training and work. Young people on vocational training courses 'buy' training themselves, paying for it through their work. With this blend of schooling and practical training, there are three different sources for funding vocational training. The State pays for the academic parts of vocational training, the employer pays the trainee a wage during the practical work experience (regulated, as are other working conditions, in the system of collective agreements), and the trainee's wages are funded during the schooling through grants from a collective employers' fund (the AER).

An account is given below of the funding of the periods spent in schools and the rules and new systems of allocation associated with them. The practical work experience parts of vocational training, as regulated through the normal market mechanisms on the labour market, are not discussed further here. The special grant scheme for private employers to provide on-the-job training places, which commenced in 1984, has now ended, and this will not be discussed.

Funding through taxation

3.2.3
National expenditure on vocational training totalled DKR 5 600 million in 1991 (including general expenditure, but excluding contributions to the State training fund).

Expenditure on training by types of training (DKR)

Basic vocational training	2 188 000 000
Upper secondary school vocational training	690 000 000
Short further vocational training	350 000 000
Other training (including social welfare and health)	150 000 000
Training compensating for practice (PKU)[1]	135 000 000
General expenditure (including small funds)	1 965 000 000

[1] Expenditure on PKU is included in the annual budget, but is financed by employers' contributions and transferred to the National Exchequer through the Employers' Reimbursement Fund for Trainees' Wages (AER).

3.2.4
In the reform of vocational training, far-reaching changes were made to funding, with the introduction of the 'taxi-meter system', a new mechanism for the allocation of funds. The vocational training reform is in itself expenditure-neutral; but from 1991 onwards, resources are allocated according to new objective criteria. The schools receive a fixed block grant instead of grants divided among different types of expenditure, and the amount is directly dependent on the activity, i.e. the number of trainees trained by the schools.

3.2.5
The activity – typically the number of trainees who take a particular course – and the results achieved by a particular institution, will determine the amount of the grant for the school. The way in which the school wishes to implement the activity will not be a factor. This principle is called the 'taxi-meter system' in Denmark because it consists of two factors, namely recorded kilometres (number of trainees taking the course) and a fare per kilometre (here, the rate per trainee).

3.2.6
In vocational training, the term 'class-year trainee' is used as a measure of the scope of training activity. The methods of recording 'class-year trainees' vary within training areas (the system has been introduced in the majority of the Danish training schemes), but for vocational training, a class-year trainee is defined as a trainee who does one year's training on a full-time basis.

The second taxi-meter element, the rate per class-year trainee, is fixed at a political level when the budget is drawn up. The amount approved is an expression of the standard which politicians wish training to attain. The schools then arrange the courses so that they correspond to the approved financial standards. They are free to dispose of the funds, provided the activity objectives and training objectives are achieved. The rates vary according to the nature of the training course. Decisive criteria are use of equipment in training, use of buildings and safety measures with regard to teacher/trainee ratio.

Vocational training, taxi-meter rates per trainee in 1991

Commercial schools first and second school period	DKR 20 000
Technical schools first school period	DKR 26 800
Technical schools group 1	DKR 34 000
Technical schools group 2	DKR 41 500
Technical schools group 3	DKR 49 000
Technical schools group 4	DKR 57 000

Note: DKR 1 000 equals approximately ECU 132 (as of 10.10.1994)

3.2.7
In addition to taxi-meter-grants, which are paid to the schools and not to the trainees, there are other general, trainee-dependent grants. A general basic grant, refund of property rent and trainee-dependent grants for administration and running costs.

3.2.8
With a free choice of training school, it is the user and not, as at present, the public authorities who will in future decide how capacity is to be increased or reduced. The financial management principles take account of the fact that the future will be characterized by smaller class-years of young people. The schools are in a situation of competing with each other for 'customers', and if trainees cannot be attracted, the school may be forced to close.

3.2.9
This reduces the variable cost per trainee while the smaller classes on account of the drop in the population will result in savings on the part of the government. There will be an all-round increase in costs per unit measured in hours of teachers' pay per trainee, which has been the case in primary and lower secondary school. At the same time, the required adjustment in the number of vocational training schools will take place automatically, as some close on account of objective activity criteria. School closures, mergers, etc., can be expected to adapt and strengthen schools on the market. In 1991, the first mergers had already taken place, and a number of schools concluded cooperation agreements.

3.2.10
Total national expenditure on vocational training is tax-funded through the general taxation system, which in Denmark accounts for a far larger proportion of public expenditure than in the other European countries, where labour-market contributions play a greater role. For EU Member States as a whole, social contributions represent some 23% of the total wages, whereas in Denmark it is only some 2%.

Financing from collective funds

3.2.11
Vocational training is alternance training, i.e. school attendance alternating with practical work experience in companies. If training starts with a training agreement (on the job admission route), the trainee must be paid wages for the duration of the training period, including periods of school attendance. If the trainee starts training during the first school period (school admission route), wages are not paid, but assistance is provided by the national training fund, if necessary. Wages are paid only when a training contract has been concluded.

3.2.12
The company is refunded the wages which it paid during school attendance from the employers' reimbursement fund for trainee wages, AER. The AER was set up, by law, in 1977 to refund employers all or part of wages paid to trainees during their time spent at school.

The law makes provision that the AER scheme is financed from contributions paid by private employers, i.e. it receives no finance from public funds. The AER embraces all private employers who will finance this scheme and are reimbursed from it. Public sector employers are not included in the AER but have their own training budgets.

The AER is a joint scheme, established to increase the supply of apprenticeship and practical work experience places offered, through financial compensation between those employers who provide young people with the training and those employers who play less of a role in the provision of training.

3.2.13
An amendment to the AER Act in May 1991, provisionally raised wage reimbursement. This increase applies to school attendance commencing in the period from 1 July 1991 to 31 December 1994. The increase raises wage reimbursement from some 70 to 90% of average trainee wages.

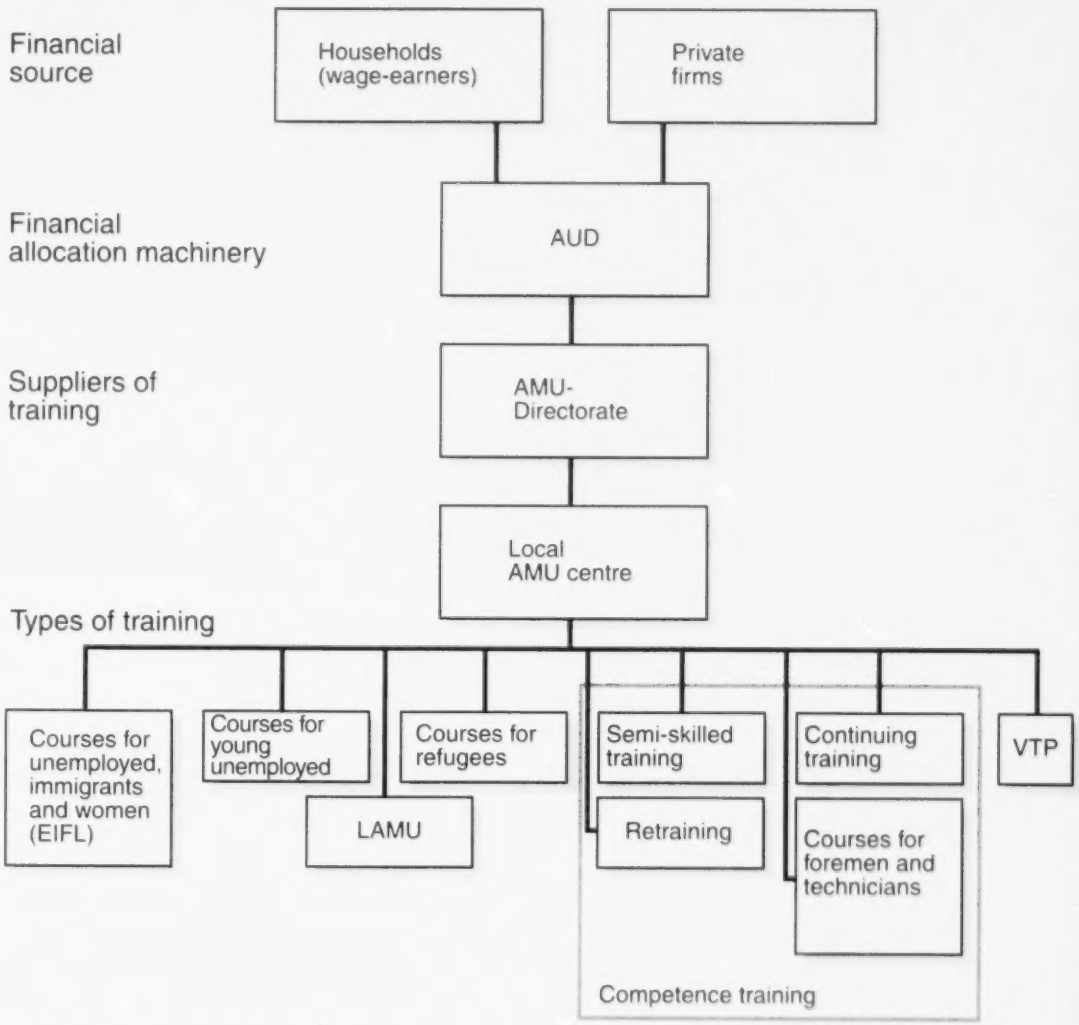
3.2.14
The AER is an autonomous institution, managed by the social partners. Amendments to the Act in 1990 added provisions for financing training which compensate for work practice and which is paid for in full by employers. The total contribution to financing the AER schemes is fixed for each year by the Minister for Education on the recommendation of the AER's managing board.

In 1990, the transfers totalled DKR 662 million, DKR 579 million for wage reimbursements, DKR 46 million for the travel expense grant scheme and DKR 37 million for a number of initiatives to create training places. The European Social Fund contributed DKR 15 million to the AER in 1990 in connection with the winding-up of the grant-schemes.

3.2.15
The State bears the cost of running AMU centres, but this is refunded annually in the form of a combined block of the labour-market training fund (AUD).

3.2.16
The following chart shows funding of labour-market training.

Funding of labour-market training



Source: 'Financing of continuing training in Denmark', CEDEFOP document, 1991.

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3.2.17
Since 1983, when the AUD Act was passed, the fund has been the financial basis for all labour-market training schemes. All employees and employers pay a sum into the Fund annually. This amount is fixed per hour of work with a total payment which equals the total expenses of the AMU system. The Law authorizes the Minister for Labour to set contributions for each year. The scheme does not intend to change existing management of labour-market training and Parliament will continue to determine the level of activity of labour-market training, in line with the annual budgets.

3.2.18
In 1990 total contributions to the AUD Fund amounted to DKR 2 000 million. This covered AMU activities in 1990 and was allocated approximately as follows:

Semi-skilled worker training	approximately DKR 1 000 million
Continued training of skilled workers	approximately DKR 500 million
Retraining Foreman training Training of refugees EI (vocational induction)	approximately DKR 500 million

3.2.19
The ATB/UTB Act of 21 December 1988 amended the Act on the labour-market training fund. It is now possible to distinguish between an AUD 1 and an AUD 2 contribution.

The purpose of the AUD 1 fund is to cover, through contributions from employers and employees, the cost of ordinary labour-market training. Total funding comes from employers and employees, in equal proportions. The annual contribution from employees to AUD 1 was DKR 436 per employee in 1991, the employers' contribution being paid as part of their VAT contribution.

The purpose of the AUD 2 fund is to finance activities under the ATB/UTB law. Total funding is thus paid by the employees. The annual contribution to the AUD 2 fund in 1991 was DKR 648.

The annual contribution from employees was DKR 1 084 per employee in 1991 and is marked on the pay slip as 'AUD contribution'. All wage earners contribute in line with their earnings.

3.2.20
The ATB/UTB Law covered the period 1989-92 and had a total of DKR 5 200 million at its disposal during these four years, or DKR 1 300 million annually. The total employee contribution to AUD 2 is DKR 900 million annually, with employers contributing indirectly a sum of some DKR 400 million. This contribution to financing the ATB/UTB comes from them having to pay for the first day off work, which was hitherto paid by the State. Two thirds of AUD funds are paid by the employees and one third by employers.

Grants from the EU Social Fund

3.2.21
The EU's Social Fund (ESF) contribution to vocational labour-market training relates especially to Objective 3: combating long-term unemployment, and Objective 4: promoting the vocational integration of young persons, whereas Objectives 1, 2 and 5 are of no significance.

3.2.22
The Social Fund financing in Denmark may not amount to more than about 45% of the total expenditure on a project or more than the same amount contributed from national public funds. In 1990, the following sums were spent in Denmark:

ESF Objective 3: Combating long-term unemployment

	Total expenses million DKR	ESF million DKR	Persons
Vocational training	145 578	65 036	2 600
Employment/start-up assistance	47 441	14 574	642
Special vocational training:			
A. Disabled persons	38 300	15 705	425
B. Immigrants/refugees	17 449	7 779	360
C. Women in male-dominated jobs	70 275	30 814	1 150
Total	**319 043**	**133 908**	**5 177**

ESF Objective 4: Promoting vocational integration of young people

	Total expenses million DKR	ESF million DKR	Persons
Vocational training	184 785	82 784	3 750
Employment/start-up assistance	82 882	23 649	1 091
Special vocational training:			
A. Disabled persons	35 779	17 561	680
B. Immigrants/refugees	26 421	11 750	650
C. Women in male-dominated jobs	29 680	13 228	880
Total	**359 547**	**148 972**	**7 051**

Source: Ministry of Labour, Social Fund section, October 1991.

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3.2.23
In 1990, total funding from the European Social Fund amounted to DKR 280 million, with the national contribution of 55%, an overall funding of just under DKR 700 million.

The breakdown of funding is roughly as follows:

- Ministry of Education: 10%;
- Ministry of Labour: 50%;
- Ministry of Cultural Affairs: 35%;
- Ministry of Social Affairs: 5%.

3.2.24
Grants from the ESF are administered by the Ministry of Labour, which channels the funds through regional labour-market committees (see paragraph 3.1.20). A minimum of 50% of funds from the Social Fund must be allocated to training activities.

4.1 Current problems

4.1.1
Within the overall perspective of a system, the Danish initial, continuing and further vocational training system is highly ramified and segmented. The 1989 reform of vocational training greatly simplifies the system, but interaction between initial and continuing training has now been streamlined. On account of structural problems in the labour market, demographic trends, technological innovation and internationalization, continuing and further training, in particular, will become key elements in the coming years.

4.1.2
From the point of view of the individual employer or employee, the supply of training is very indeterminate. The multiplicity of technical schools, commercial schools and the AMU centres will perhaps have to be replaced by vocational training centres which can offer local trade and industry, both quickly and flexibly, the type of training schemes and continuing training courses that are required.

4.1.3
The campaign to combat unemployment is so widely dispersed that it is difficult even for experts within different sectors to obtain an overview of the many possibilities. Four ministries are involved in efforts to combat unemployment.

4.1.4
The complexities and insufficiently coordinated nature of measures can be a serious barrier to effective training. It can also be argued that many different sets of rules, together with the training offered, potentially enable competition to flourish on the supply side, benefiting quality and efficiency, and enabling users to combine and tailor their specific requirements, by cutting across the supply offer, fragmented into sectors.

4.1.5
There is no current qualification problem in Denmark. Currently 51.6% of the labour force are unskilled, and although the share will decline in the years to come, 42.4% of the labour force will still be unskilled in year 2013 according to forecasts from the Ministry of Education. Owing to an increasing demand for qualifications, a need exists to extend admittance of adults to vocational training and long-term AMU courses. There is also a need to link general education and vocational training more flexibly. In this context, freedom to take leave of absence is a current problem. In Denmark there is no legal right to paid leave of absence. In the group contracts of 1991 certain sectors have acquired the right to one week's paid leave of absence for training purposes during working hours. This development is likely to increase when group contracts are renewed in 1993.

4.1.6
Generally the multiplicity of, and competition between, various trade committees and sector committees, which were to provide training for newly-developed job tasks in trade and industry, helps to provide the Danish vocational training system with a degree of innovation. With the change-over to management by objectives the Danish system's ability to translate needs for change into practical instruction has improved markedly. A large number of research and development projects bear witness to this; these have, through the years, helped to transform theory and methodology from being controlled in detail and characterized by skills training,

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into developing forms of instruction, directed towards teaching the trainees problem-solving, work organization, and assessment skills.

4.1.7
On account of close cooperation between the social partners in designing training, theoretical models, for the way in which training schemes are set up, have been avoided. The driving force within the Danish system seems to be the fact that the trade committees and sector committees each try separately, and often in competition with one another, to provide training on the basis of their perspective of the market.

4.1.8
A constant problem since the 1970s has been the shortage of apprenticeship and on-the-job training places, which is a serious impediment to the overall policy objectives that all young persons have genuine opportunities to obtain training if they so wish. It is imperative for vocational training in Denmark that the alternance training system be maintained and developed, as it gives young people breadth and depth of vocational knowledge, although not practical work experience. On the other hand, there are not enough apprenticeship and on-the-job training places to avoid losing a considerable number of young persons.

The problem of on-the-job training places is to a certain extent cyclical and dependent on the overall economic situation. A clear correlation can be established between trade cycles and the availability of apprenticeship and on-the-job training places. There is, however, no doubt that the problem also has structural origins. Firms are not in a position to offer the training on the scale that they did earlier since, with new production plant and high technology production processes, it is more difficult than before to arrange in-house training for apprentices. There is less need for job profiles that are more of a trades craft nature. Companies' inclinations to take on trainees are therefore weakened.

4.2 Developing the quality of vocationally-oriented education

4.2.1
Increasing interest in the quality and content of training is not an isolated phenomenon peculiar to Denmark. The debate evolved during the 1980s in most Western economies. At the end of 1988, the Minister of Education launched an interdisciplinary 'content and quality improvement project', throughout the whole area of the Ministry's responsibility. The overall purposes of the project are:

- to clarify the objectives of training to make it easier for users, trainees and students to make comparisons. At the same time it should ease choice of training;

- to ensure greater cohesion with regard to content of training, so that the transition between the different subjects and training paths can be made without gaps or overlapping;

- to ensure higher quality throughout, so that trainees get better training for their money. Training content must be more transparent, enabling users to select the training institution best suited to them.

4.2.2
As part of this quality project, school subjects have been examined 'transversally' within the training system; the individual subjects have to be appraised throughout the training period and within the system as a whole. The levels of subjects have been charted, and working groups have made proposals to improve transition from one training scheme to another for individual subjects.

Working groups have been set up for the subjects Danish, English, French, physics, mathematics, art and design, electronic data processing (edp), music, biology and German. The working groups have assessed lessons, both written and oral, and a committee has evaluated the various forms of testing and examination and has made proposals to maintain or improve their quality.

All the abovementioned committees have presented reports and the subjects and forms of examinations in both basic vocational training and upper secondary school training have been analysed and assessed, as have other elements of the training system. This material contains a wealth of recommendations and proposals for improving instruction at vocational schools and for improving teacher qualifications. The immediate outcome has been increased awareness of quality and greater attention to the problems involved in the subjects and their 'transversal' teaching.

4.2.3
In vocational training the vocational education reform has placed greater emphasis on examinations and streaming, as marks must be awarded in all subjects. This innovation applies particularly to technical vocational training. In order to ensure training quality, increased quality control is now practised.

4.2.4
In addition to these quality improvement strategies, better quality of training has been the main aim behind the changes in the structure, management, and organization of training, as presented in Sections 2 and 3. Management by objectives is an important means of innovation and development 'from below', just as free choice of school and competition between training schools to attract trainees have the purpose of constructing self-regulating mechanisms through market economy principles to promote quality of training content.

4.2.5
Within the labour-market training courses, a number of quality improvement projects have also been initiated. Since 1987, a large organization development project has been carried out at AMU centres to improve their operation in four areas: educational science, administration, marketing, and subject content of courses. Throughout the country, a total of 133 project groups have been working on these topics and the results have been incorporated to a certain extent in the day-to-day work of the centres. Over the next three to four years, management by objectives is to be introduced in labour-market training, as part of quality development of AMU courses, giving greater freedom for local adaptation and greater scope for developing content and teaching.

4.2.6
Attention is also focusing on improving the quality of training for trainers. SEL holds annual quality conferences for commercial and technical schools. A new quality development project 'KUP-U' has been prepared for the Board of Trade and Industry and is now being implemented with trainers from commercial and technical schools, AMU centres, and monitors from the companies. The purpose is to equip training schools to satisfy quality requirements as laid down in international standard specifications such as the ISO-9000 series, and also to meet the challenges of the internal market.

4.3 Internationalization and the significance of the EU

4.3.1
The great increase in international cooperation has also increased the need to strengthen the international aspect of training. The existence of an internal market in Europe as from 1993, more than any other factor, will render internationalization of the Danish training system necessary. At the same time, increased internationalization is a decisive incentive to improve the quality of the training. Internationaliztion, however, means much more than just the EU internal market, and many Danish vocational schools are already participating in broad international cooperation projects with the EU, Scandinavian countries and, increasingly, with Eastern Europe.

In recent years a number of important political steps have been taken, in Denmark, Scandinavia and the EU to strengthen this international trend. Some of the more significant ones will be mentioned in the following.

4.3.2
Strengthening foreign language teaching in primary and lower secondary school, vocational training and upper secondary school education. The EU's Lingua programme, allocating over a five-year period the equivalent of some DKR 1 600 million for language teaching abroad for teachers and students, is helping to improve language skills and skills in foreign language teaching.

4.3.3
The international aspect has been incorporated in Danish training wherever it is natural to do so, from primary and lower secondary school to further training. With the vocational training reform, basic training, in commercial schools in particular, has strengthened its international aspect. Brand new training paths have been created with a view to internationalization, for example the Market Economist Training at commercial schools.

4.3.4
In the near future, most trade committees will commence discussion of internationalization and merit-based transfers. It is likely that the information produced through CEDEFOP's comparative descriptions of vocational training at level 2 will be incorporated in this work. The very process of making comparative statements has been of great help to the participating experts and to the labour-market partners in the national training systems. This has improved the basis for evaluating any comparability of vocational training.

4.3.5
Another marked tendency is the developing and updating of vocational training through participation in a number of EU programmes. Many Danish vocational schools participate in PETRA, Lingua, Eurotecnet, FORCE, etc., which set up cooperation networks for participation in joint projects. Schools are showing great interest in participation and these networks are producing innovative features in both teaching content and methods. A large number of cooperation and development agreements have been concluded with institutions in other countries through a decentralized system within which the schools and training centres are willing to cooperate.

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4.3.6
The Danish training grants system has also been internationalized so that rules on funding now enable anyone as part of training to train abroad for a time and have the training grant transferred.

4.3.7
As of 1 January 1992, apprentices/trainees have had their own EU exchange programme as a part of the PETRA 2 programme, with a total budget of DKR 1 500 million, over three years, to enable apprentices and trainees to go on exchanges in other EU countries. The aim of PETRA 2 is to improve the quality of the countries' basic trade training and to prepare young people for geographical mobility. Training commences with a company in Denmark and the student then goes on a short, approved training visit to another EU country and returns to Denmark to complete training. Apprentices' stays abroad are of at least three weeks' duration. In the autumn of 1991, 41 Danish apprentices departed for another EU country, as part of PETRA 2.

4.3.8
It can be expected that vocational trainees undergoing alternance training will increasingly tend to do part of their practical training in another EU country. This is expected particularly in the Southern Jutland area, where the language barrier is not significant. The question of obtaining full merit transfer in Denmark for a practical period spent abroad is covered by 1992 legislation. The trade committees take decisions with the approval of the employers of trainees.

4.3.9
As part of efforts to strengthen Danish vocational training's international aspect, the ACIU (Arbejdsmarkedets Center for Internationale Uddannelsesaktiviteter – The Labour Market Centre for International Educational Activities) was set up in 1991 by the social partners in cooperation with the Ministries of Labour and Education. The ACIU is responsible for labour-market training and is Danish coordinator of the FORCE and PETRA programmes. The ACIU has contacts with the Danish organizations responsible for vocational training and is also participating in a network of corresponding organizations in other EU countries.

4.3.10
Internationalization is taking place rapidly and the EU is increasingly considered a single training and labour market. There is great interest among young people to spend time abroad for part of their training and most vocational schools are involved in various international activities. The trade committees are expected to commence discussion of internationalization of training.

4.3.11
European cooperation, not only with EU countries, is considered fruitful and as useful inspiration for national training policy which can be 'translated' to the national work place and school culture. This beneficial pluralism combined with openness towards other experiences and fresh impetus have strengthened the Danish vocational training system.

ANNEXES

Annex 1

Abbreviations and acronyms

AER
Arbejdsgivernes Elevrefusion
Employers' reimbursement for trainees' wages

AF
Arbejdsformidlingen
(The local governmental labour-market authorities with responsibility for employment service, job-finding, employment arrangements and general implementation of measures of labour-market policy.)

AMU
Arbejdsmarkedsuddannelserne
Labour-market training schemes/courses

AMS
Arbejdsmarkedsstyrelsen
Labour Market Training Authority

ATB
Arbejdstilbud
Job offers relating to the Act on job offers, etc.

AUD
Arbejdsmarkedets Uddannelsesfond
Labour-market training fund

DA
Dansk Arbejdsgiverforening
Danish Employers' Association

DFE
Direktoratet for Erhvervsuddannelser
Vocational Training Directorate

ED
Erhvervssproglig diplomuddannelse
Education for the business language diploma examination

EFG
Erhvervsfaglig grunduddannelse
Initial training

EI
Erhvervsintroducerende kurser
Vocational induction courses

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EIFL/EIFU
Vocational induction courses at AMU's EI centres, of 7 to 10 weeks' duration, with programmes especially arranged for young persons, long-term unemployed persons, unemployed women and immigrants

ESA
Erhvervsskoleafdelingen i Undervisningsministeriet
Vocational school department in the Ministry of Education

ESF
Den Europæiske Socialfond
European Social Fund

EU
Erhvervsuddannelserne
Vocational training schemes

EUR
Erhvervsuddannelsesrådet
Vocational training council

EUU
Erhvervsuddannelsesudvalgene
Vocational training committee

HD
Handelshøjskolens diplomprøve
Diploma examination and education at the School of Economics and Business Administration

HF
Højere Forberedelseseksamen
Higher Preparatory Examination

HG
Handelsskolens Grunduddannelse
Initial commercial training

HHX
Højere Handelseksamen
Higher commerce diploma examination

HS
Handelsskolen
Commercial/business college or school

HTX
Højere Teknisk Eksamen
Higher technical examination

IDV
Indtægtsdækket virksomhed på AMU-centre
Income-covered activity at the AMU centres

KUP-U
Kvalitetsudviklingsprojekt for erhvervsuddannelserne
Quality development project for vocational training, started by the Board of Industry and Trade in 1991

LAMU
Længerevarende arbejdsmarkedsuddannelser på AMU-centre
Extended labour-market training at AMU centres

LO
Landsorganisationen i Danmark
Danish Federation of Trade Unions

PKU
Praktikpladskompenserende undervisning
Compensatory training for on-the-job training

RUE
Rådet for Uddannelses- og Erhvervsvejledning
Council for Educational and Vocational Guidance

SEL
Statens Erhvervspædagogiske Læreruddannelse
Royal Danish School of Educational Studies for Teachers at Commercial and Technical Colleges

SOS
Social- og Sundhedsuddannelserne
Social welfare and health training schemes

TS
Teknisk skole
Technical school/college

UTB
Uddannelsestilbudsordningen
Job offer-scheme in pursuance of the act on offers of employment

VTP
Virksomhedstilpassede kurser på AMU-centre
Enterprise-adapted training at AMU centres

VUC
Voksenuddannelsescentre under Kulturministeriet,
(Direktoratet for Folkeoplysning m.v.)
Adult education centres under the Ministry for Cultural Affairs,
(Directorate for General Education)

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Annex 2

Relevant institutions and organizations

Ministry of Education and Research
Frederiksholms Kanal 21
DK-1220 København K
Tel: 45 - 33 925000
Fax: 45 - 33 925547

ESA, The Vocational School Department of the Ministry of Education and Research
H. C. Andersens Boulevard 43
DK-1553 København V
Tel: 45 - 33 925600
Fax: 45 - 33 925666

Ministry of Labour
Laksegade 10
DK-1358 København K
Tel: 45 - 33 925900
Fax: 45 - 33 121378

Labour Market Educational Authority (AMS)
Blegdamsvej 56
DK-2100 København Ø
Tel: 45 - 35 288100
Fax: 45 - 35 362411

DA, Danish Employers' Association
Vester Voldgade 113
DK-1552 København V
Tel: 45 - 33 934000
Fax: 45 - 33 122976

LO, Federation of Trade Unions
Rosenørns Allé 12
DK-1634 København V
Tel: 45 - 31 353541
Fax: 45 - 35 373741

SEL, The Royal Danish School of Vocational Studies for Teachers at Commercial and Technical Colleges
Rigensgade 13
DK-1316 København K
Tel: 45 - 33 144114
Fax: 45 - 33 144214

ACIU, The Labour-market Centre for International Educational Activities
Hesseløgade 16
DK-2100 København Ø
Tel: 45 - 39 271922
Fax: 45 - 39 272217

Annex 3

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Annex 4

Definitions of key terms

This short list of terms and their use in this report has been drawn up by the author. It makes no claim to be an authoritative terminological work. In this connection reference is made to CEDEFOP's current activities in the field of terminology and vocational training. Interested persons should contact CEDEFOP.

Adult education (Voksenuddannelse)
Training of adults which is normally understood to involve participation in general education, but the term is used here to mean especially vocational training of adults.

Alternance training (Vekseluddannelse)
Vocational training which consists of predetermined alternation between training in enterprises and participation in theoretical and practical classes in a vocational school. Danish basic vocational training is dual, i.e. organized as alternance training.

Apprentice/trainee (Lærling)
Person who undergoes training which also includes contact-regulated training outside the school (i.e. in firms).

Apprentice training (Lærlingeuddannelse)
Vocational training in which the apprentice takes alternance ('sandwich') training under an approved training contract, which refers to prescribed training within the enterprise combined with compulsory attendance in classes at a specialized technical school in accordance with the syllabuses for theoretical and practical instruction.

Autonomous institution (Selvejende institution)
Institution which owns the capital upon which its operation is based, i.e. it is not owned or managed by investors of capital. The composition of management is laid down in the statutes of the enterprise, as are the rules applying to use of profits. Vocational schools are organized as autonomous institutions with their own capital, but almost totally financed by public funds.

Basic training (Grunduddannelse)
Training given to (young) people before they begin a job.

Basic vocational training (EFG or HG) (Erhvervsfaglig grunduddannelse-EFG)
Vocational, basic training introduced by a basic year which is spent at a vocational school (technical or commercial college) and is followed by alternance training, which requires a training, contract with a training enterprise and which has the form of alternance between school and enterprise.

Branch committee (Brancheudvalg):
Committee with equal representation developing plans for semi-skilled training and ensuring that the training is carried out in a professionally responsible way. A total of 25 trade committees have been appointed.

Continuation schools (Efterskoler):
These schools take pupils in the 14 to 18 age range and offer an alternative to the 8th to 10th of primary schools and lower secondary schools. They are boarding schools and offer teaching in the subjects of the basic schools as well as creative and practical subjects. They are so-called 'free' schools and have their origins in the folk high schools.

Continuing training (Efteruddanelse)
Training of people who have already undergone basic vocational training, with a view to updating knowledge and skills.

Coordinated enrolment (Samordnet tilmelding)
In the final years of primary and lower secondary school the enrolment in youth training and upper secondary education is co-ordinated. Application forms and guidance are sent from the Ministry of Education in February to all schools with pupils in the 9th and 10th. Pupils must submit the same form regardless of their choice of training, not later than 15 March.

Datanom (Datanom)
'Datanom' training is short, continuing part-time training of three years' duration. It is for adults with basic vocational training and business experience. The teaching takes place at commercial schools as evening classes. The training is concluded by a State controlled examination. It is modular training.

Executive order (Betænkning)
As part of the preparation of new legislative initiatives a commission is often appointed by the individual minister. The commission is given a mandate by the minister. The commission delivers an executive order including the comments of the commission and possibly a draft bill.

Executive order for training (Uddannelsesbekendtgørelse)
It is based on Law and applies both to the citizen and the administrative authorities. The 85 new vocational training courses are described in the shape of executive orders stating the objectives and framework of each course.

Further training (Videreuddannelse)
Training with the aim of extending occupational competence to one stage higher than the basic training.

Income covered activity (Indtægtsdækket virksomhed-IDV)
IDV courses are courses the costs of which are paid by the customer, who in return receives a tailor-made training offer in accordance with his needs. Vocational schools as well as AMU centres have an increasing amount of offers on user-paid terms.

Management by objectives (Mål- og rammestyring)
Control of vocational training has been decentralized through the introduction of management by objectives. The central level sets objectives for the training and frameworks within which the objectives must be reached. The schools have freedom of action within these frameworks with the purpose of achieving the objectives in the most appropriate way.

Master apprenticeship (Mesterlære)
Apprenticeship established by contract between the would-be apprentice and an employer; only then may the apprentice be registered at the vocational school.

Merkonom (Merkonomuddannelse)
Holder of diploma in specialised business studies. A short, continuing training at the commercial school of three years' duration in evening classes for adults with basic vocational training and vocational experience. The training is in modules and is concluded by a State controlled examination.

Principle executive order (Hovedbekendtgrelse):
Basic vocational training is governed by executive orders which must be in accordance with the principle executive order, which sets the framework and contents of the individual executive order for training.

School period (Skoleperiode)
Basic vocational training alternates between school teaching and on-the-job training. The school teaching is divided into school periods of varying duration and number depending on the training. First and second school periods are of 20 weeks duration and the duration of later school periods varies.

Semi-skilled worker training (Specialarbejderuddannelse)
Training of an adult person to accomplish tasks in an enterprise or sector. The training takes place at courses in AMU centres and results in qualifications below the skilled worker level.

Taxi-meter principle (Taxameterprincip)
Grant system dependent on activities, where the number of students determines the size of the schools' grants. This system is called the taximeter principle, because it has two components: a registration of kilometers (number of students being trained) and a price per kilometer (per student).

Teknonom (Teknonomuddannelse)
Holder of diploma in specialized technological studies. 'Teknonom' training is offered at technical schools as a three year part-time course leading to a State controlled examination. The admission condition is skilled training and several years of occupational experience.

Trade committee (Faglige udvalg)
The trade committees are appointed by the social partners and deal with questions regarding individual training courses, their duration, structure, objectives, and measures of evaluation. The trade committees make an executive order for each training course and approve on-the-job training enterprises. They play a key role in Danish vocational training.

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Training contract (Uddannelseskontrakt)
The legal relationship between an apprentice and the training enterprise is regulated by a formal training contract which must be in accordance with a number of rules drawn up by the Ministry of Education. It is a condition for carrying out vocational training that a training contract has been signed between the trainee and one or several enterprises. It must comprise all the on-the-job training and school periods including any final apprentices examination.

Training counsellor (Studievejleder)
A teacher who has through continuing training qualified to guide students for their choice of training and vocation. The function exists both at primary and lower secondary schools and at vocational schools.

Unemployment (Arbejdsløsched)
The part of the labour force which is without employment. By definition persons are long-term unemployed in Denmark if unemployed 80% of a period of a year or more.

Upper secondary education (Gymnasiale uddannelser)
School education after primary and lower secondary school, normally of three years' duration, giving admittance to higher education and training. In Denmark there are four types: general upper secondary school (gymnasium), higher preparatory examination (HF), higher commercial examination (HHX), and higher technical examination (HTX).

Vocational school/college (Erhvervsskole)
Vocational training is given at vocational schools of which there are 120. Half of these are technical schools and the remainder commercial schools. Further, there are 30 agricultural schools and 16 social and welfare schools. These schools are headed by boards and organized as autonomous institutions.

Vocational training (Erhvervsuddannelse)
Training which confers professional/occupational competence by providing specific professional or trade qualifications, which prepare the trainee to practise a profession or trade.

Youth training (Ungdomsuddannelser)
Vocational training consisting of on-the-job training and participation in the academic and practical teaching of a vocational training course. The basic vocational training in Denmark is dual, i.e. organized as alternance training.

CEDEFOP – European Centre for the Development of Vocational Training

Vocational education and training in Denmark

Søren P. Nielsen
Statens Erhvervspædagogiske Læreruddannelse (SEL)

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Belgisch Staatsblad

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B-1000 Bruxelles/B-1000 Brussel
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Fax (02) 511 01 84

Jean De Lannoy

Avenue du Roi 202/Koningslaan 202
B-1060 Bruxelles/B-1060 Brussel
Tel. (02) 538 51 69
Fax (02) 538 08 41

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DANMARK

J. H. Schultz Information A/S

Herstedvang 10-12
DK-2620 Albertslund
Tlf. 43 63 23 00
Fax (Sales) 43 63 19 69
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DEUTSCHLAND

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Breite Straße 78-80
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